

Manufacturers Record

Industry Construction



\$6.50 per Year
Single Copy, 20 Cents

Baltimore, Md.
APRIL 2, 1931



Evils of the Dole



Announcement from the American Trade Commissioner at London to the Department of Commerce that British "unemployment benefits" this year will total \$657,000,000 is in the nature of a writing on the wall which the American people well may ponder. Of the total, \$507,000,000 will come direct from the British exchequer and \$150,000,000 from assessments on employers and employees.

"The unemployment fund is hopelessly insolvent under present conditions and is now increasing its debt at the rate of nearly \$5,000,000 a week," the American Trade Commissioner adds.

Far worse than this huge financial loss entailed on the British people through Government participation in unemployment relief is the incalculable loss in morale and self-respect among the people. No finger can touch the dole without defilement. No people who accept the policy and practice of the dole can escape degradation.

American industrial leaders and all other sound-thinking Americans are opposed to a dole, open or disguised, in the United States. In favor of it, apparently, from the measures they propose, are the demagogues, radicals and visionary theorists. The question is not one of dollars alone, but embraces the national security and the maintenance of the great principles which have made this country what it is.

An AIR PREHEATER

that can be cleaned while in operation!

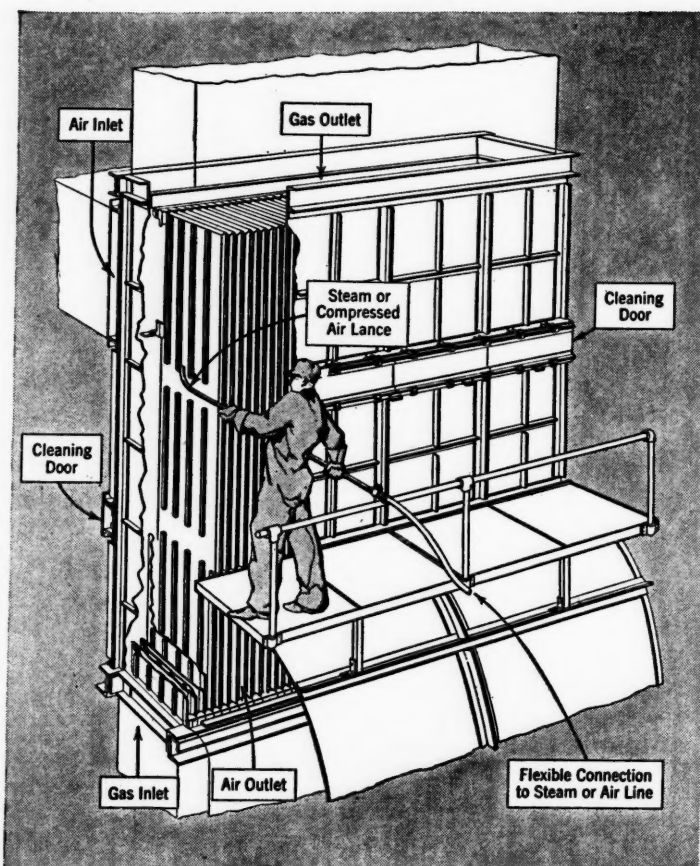
The design and operating principle of the C-E Air Preheater retard the accumulation of soot or flue dust; but in time a film is bound to accumulate in the gas passages of *any* type of preheater, which if not removed, would result in lower operating efficiency of the unit. To maintain the maximum heat transfer from the hot gases to the air and hence the maximum efficiency, conveniently located doors are incorporated in the design of the C-E Air Preheater. These doors provide access to the gas passages, which may be quickly and easily cleaned with a steam or air lance—*while the unit is in operation*.

This ability to clean the heater elements quickly and easily while the unit is in operation is a feature which should not be overlooked when considering the installation of air preheaters.

Other features of C-E Air Preheater design which insure a reliable source of preheated air at minimum expense are:

- no moving parts
- nothing to wear out
- nothing to get out of order or adjustment

Over thirty-three per cent of C-E Air Preheater installations represent *repeat orders*.



A catalog illustrating and describing the C-E Air Preheater is available and will be mailed upon request

COMBUSTION ENGINEERING CORPORATION

200 MADISON AVENUE • NEW YORK

BOILERS • AIR PREHEATERS • STOKERS • PULVERIZED FUEL EQUIPMENT • WATER-COOLED FURNACES

Making it easy to concentrate purchases and save time, trouble and money

Ten thousand sizes and kinds of steel products—ready to ship

Beams and Heavy Structural

An unusually large stock of the heavier structural sections including special wide flange structural shapes.

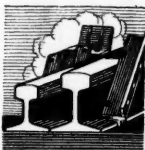


Channels, Angles, Tees and Zees

A complete range of both structural and bar sizes in all standard sections, also galvanized angles, ship and car channels, etc.

Rails, Splices, Spikes, Bolts, Etc.

Standard new rails with all accessories—splices, spikes, track bolts, etc.—are in stock for immediate shipment.



Plates

Steel plates U.M. and sheared, high carbon plates, firebox steel, copper bearing, Armco Ingot Iron and diamond floor plates stocked.

Stair Stringers, Safety Tread, Etc.

Several types of safety tread for all stairways, inclined passageways, thresholds, etc. Also light weight steel stair stringers.



Sheets

Stocks include sheets for every purpose—more than twenty-five different kinds from plain black to Allegheny stainless, carried in a full range of sizes.

Hoops and Bands

Bands, both plain and galvanized, and hoops in both coils and straight lengths are carried in stock in a full range of sizes. Immediate shipment assured.

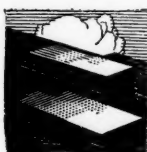


Bars—All Shapes and Sizes

Rounds, squares, flats, hexagons, ovals, half-ovals, half-rounds, bevel edge flats, etc., in a full range of sizes and lengths.

Cold Finished Steel Bars

Flats, rounds, squares and hexagons in various analyses. Triple inspected for accuracy, straightness and finish.



Extra Wide Cold Finished Flats

Cold finished flats in widths up to 12 inches and from 3/4" to 2" thicknesses are carried in stock for immediate shipment.

Shorten the work of buying your steel and allied products. Make one contact, one order, one checking, one invoice cover current requirements on the various lines. You'll find it saves time and trouble as well as money.

Note the diversity of steel lines shown here. The Ryerson Journal and Stock List will give you complete information including sizes, weights, etc. Make it your guide on steel. Write for the current issue.

Strip Steel, Flat Wire, Etc.

Stocks include cold rolled strip in dead soft, half hard and hard qualities; also cold rolled flat wire in coils or cut lengths.

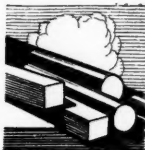


S.A.E. Alloy Steels

Stocks include Hot Rolled S.A.E. 2315, 2320, 2330, 2335, 2340, 2345, 2350, 3115, 3120, 3135, 3140 and also Cold Drawn S.A.E. alloys of many analyses.

Allegheny Metal

—The unstaining, unrusting, untarnishing nickel chrome alloy that is being adopted for many purposes in all lines of industry. Large and complete stocks.



Heat Treated Alloy Steel Bars

Various grades of alloy steel bars heat treated and ready for use, in a wide range of sizes, including Nikrome, Ryco, etc.

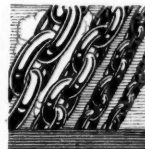


Tool Steels

Special grades of tool steel for every shop requirement are carried in stock. Also tool steel sheets, tool holder bits, etc.

Chain, Grab Hooks, Etc.

Standard grades and sizes of chain; special chain for cranes and steam shovels, grab hooks and similar products can be shipped at once.

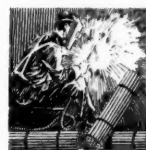


Boiler Tubes and Fittings

Boiler tubes, ferrules, flanges, hangers, lugs, crabs, hand holes, braces, nozzles, patch bolts and other allied products are in stock.

Welding Rod and Equipment

Special rods adapted to welding the various materials and also equipment for both acetylene and electric arc welding.

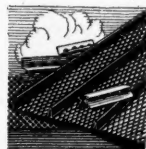
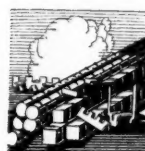


Rivets, Bolts, Nuts, Washers, Etc.

The range of kinds and sizes carried are too numerous to list. Stocks include practically all types of these and similar products.

Reinforcing Bars and Accessories

Concrete reinforcing bars are cut, bent and delivered as needed, including all accessories, caisson rings, etc.

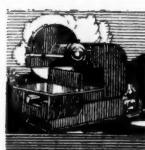
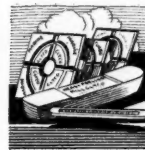


Steel Building Products

Metal lath, steel stucco base, corner bead, picture mold, base, screed, etc., round out our service to the contractor and builder.

Babbitt Metal and Solder

Five grades of Glyco Babbitt meet all bearing metal requirements. "Ryerson Guaranteed" solder is also stocked.



Machinery and Tools

Ryerson Machinery Division can meet all your requirements for machine tools, metal working equipment and small tools. Write for descriptive literature.

JOSEPH T. RYERSON & SON INC.

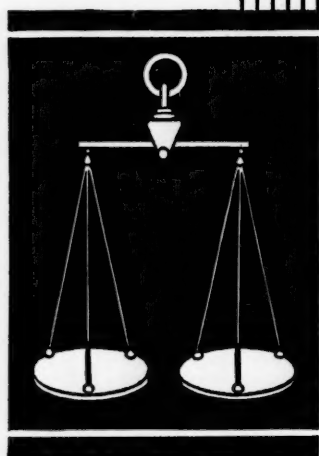
Plants: Chicago, Milwaukee, St. Louis, Cincinnati, Detroit, Cleveland, Buffalo, Boston, Philadelphia, Jersey City

Representation in: Minneapolis, Tulsa, Rockford, Kansas City, Houston, Dallas, Newark, New York, Denver, Los Angeles, San Francisco

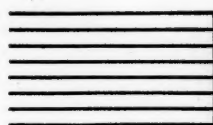
RYERSON

STEEL - SERVICE

BALANCE



CARBORUNDUM practice REG. U. S. PAT. OFF. dictates that BALANCE should be "Born" in a Grinding Wheel

 **B**ALANCE should be born in a grinding wheel—born of a uniformity, a "balance" in the actual wheel mass—a homogeneity of the grain and bond, plus accurate dimensional sizing and the proper finishing of the wheel.

Carborundum practice is aimed towards building a balance into grinding wheels right from the very start—not by way of corrective measures after they come from the kilns.

And during the past five years Carborundum research has made important strides towards the producing of wheels nearer to perfect balance than ever before in the history of the industry.

Tolerances or compensations have been drawn closer and closer until today we are making a remarkably high percentage of both snagging and precision wheels *that require absolutely no correction for balance.*

Balance is born in these wheels.

The result is the building of grinding wheels that are so close to perfect balance—that have such refinements of balance—that wheel life is greatly prolonged.

Excessive vibration and undue strain on bearings and spindles are either eliminated or greatly reduced. More accurate work and better finishes, where these factors are essential are made possible.

This question of wheel balance is an all important one and the results of Carborundum research towards the production of wheels that require little or no corrective measures has been far-reaching indeed.

It has been an important Carborundum contribution to industry.

And it is such constant research and vigilance that is enabling Carborundum-made Grinding Wheels to make and maintain performance records for production—for finish—for grinding economies.

THE CARBORUNDUM COMPANY, Niagara Falls, N. Y.

CANADIAN CARBORUNDUM CO., LTD., NIAGARA FALLS, ONT.

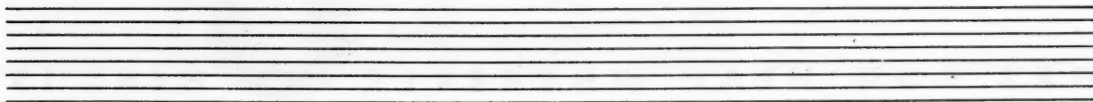
Sales Offices and Warehouses in

New York, Chicago, Boston, Philadelphia, Cleveland, Detroit, Cincinnati, Pittsburgh, Milwaukee, Grand Rapids, Toronto, Ont.

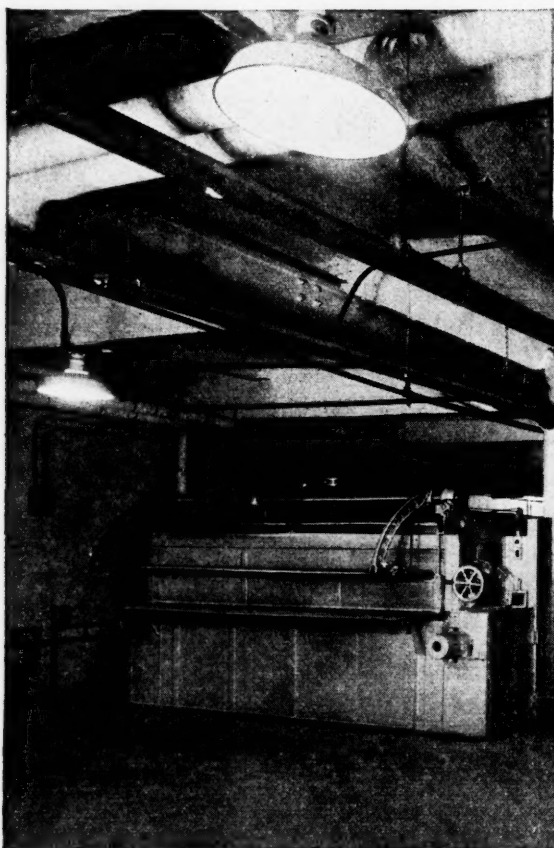
The Carborundum Co., Ltd., Manchester, England

Deutsche Carborundum Werke, Reisholz bei Dusseldorf, Germany

(CARBORUNDUM IS A REGISTERED TRADE MARK OF THE CARBORUNDUM COMPANY)



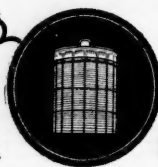
The BIG ones bake with Gas



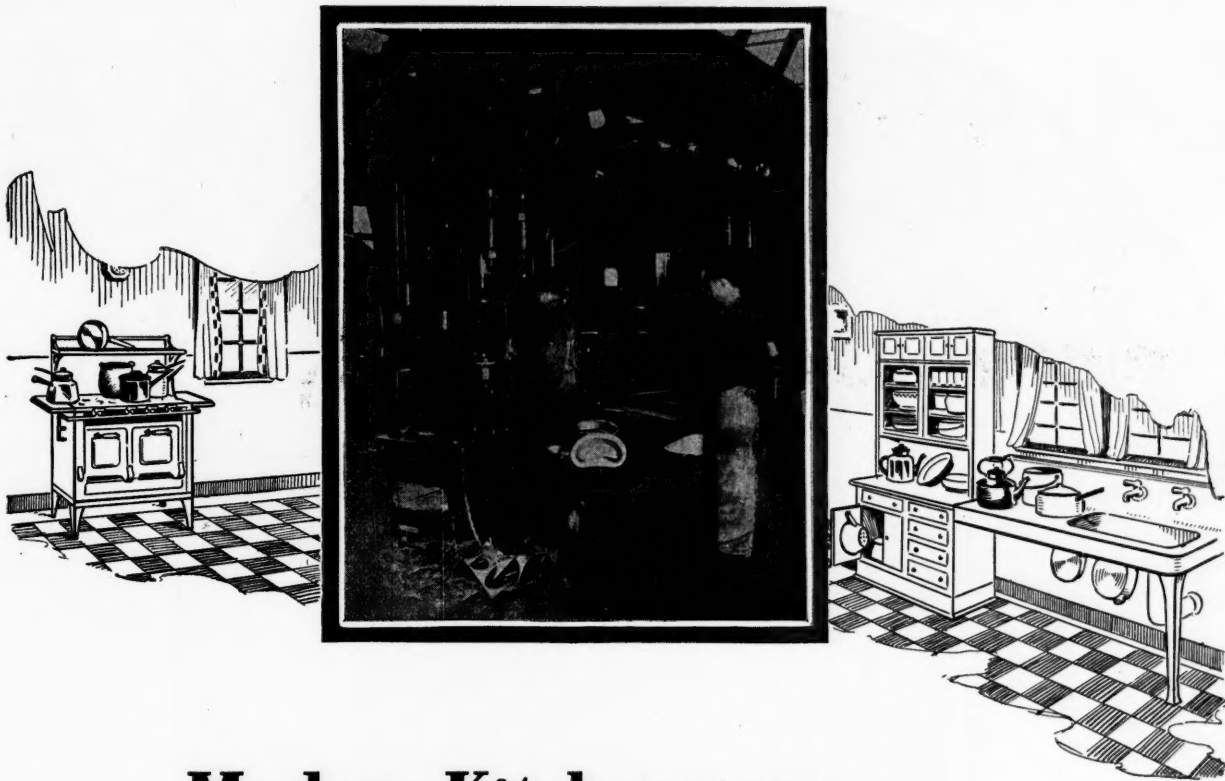
■ The more important the bakery, the surer you may be that its ovens are gas-fired. Gas heat has proved itself in the baking business . . . the big ones as well as the progressive smaller ones bake with gas. Send for your copy of the new book "Gas Heat in Industry".

AMERICAN *Gas* ASSOCIATION
420 Lexington Avenue, New York

GAS FOR HEAT WHEREVER



HEAT IS NEEDED



Modern Kitchenware is produced by Bliss Presses

IT is literally impossible to find a kitchen without some utensil or appliance that has been made by a Bliss Press. The vast assortment of pots, pans, and other vessels used as kitchen containers is blanked, drawn, and formed largely on Bliss equipment.

And kitchenware is only one of an unending list of sheet metal products that have reached a wider market through the economical production made possible by Bliss equipment. Whatever sheet metal operations may be performed in your plant, it will pay you to investigate the possibilities of doing them quicker or at less cost by the Bliss method. Our 70-year experience is at your service.

E. W. BLISS CO. MAIN OFFICE AND WORKS BROOKLYN, N. Y., U. S. A.

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Factories: BROOKLYN, N. Y. HASTINGS, MICH. SALEM, OHIO

BLISS



Thinking about your *in-stock* problems

(A Message to Jobbers)

PROMPT service is the key to to-day's selling problem. Your customers hold their stocks to a minimum and expect immediate delivery on fill-ins.

Let our warehouse stocks help you meet this condition profitably. Here at Granite City, served by 29 railroads and the Mississippi River, we maintain a mill warehouse completely stocked with a wide selection of plates and sheets in standard sizes and gauges ready for immediate shipment. Thinking helpfully about your in-stock problem is just another phase of Granite City Steel Company's service.

Chicago, Dallas
Kansas City
Los Angeles



St. Louis, St. Paul
San Francisco
Salt Lake City

GRANITE CITY STEEL CO. GRANITE CITY ILLINOIS
Galvanized, Blue Annealed and Black Sheets - Plates and Tin Plate

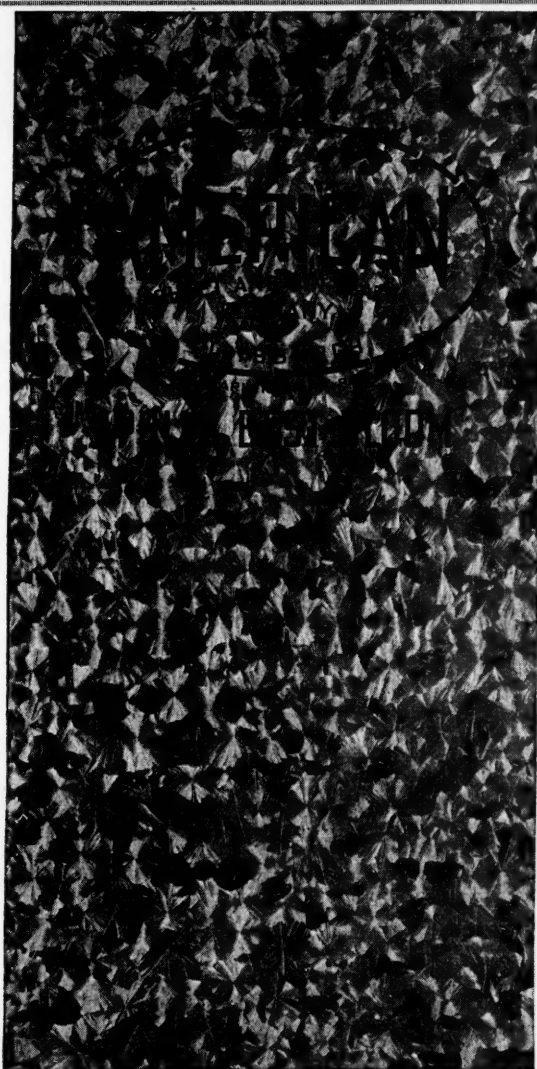
AMERICAN

APOLLO Best Bloom Galvanized SHEETS

Years of experience and extended research enable us to produce high grade Galvanized Sheets, flat and in formed products—the standards of quality for all purposes to which zinc coated sheets are suitable.

APOLLO BEST BLOOM Galvanized Sheets have been the leader since 1884—and are well known for their ductility, splendid coating, and general excellence. This brand binds together more satisfied sheet metal workers than any other make.

KEYSTONE-APOLLO Galvanized embodies all the high qualities of the Apollo brand, together with the added feature of a *copper steel* base which gives maximum *resistance to rust* and corrosion.



By demanding AMERICAN quality you insure the excellence that comes from sheet metals that are correctly made in every detail, by skilled and experienced craftsmen.

AMERICAN

Black Sheets
Blue Annealed Sheets
Galvanized Sheets
Electrical Sheets
Full Finished Sheets
Automobile Sheets
Keystone Rust-resisting
Copper Steel Sheets
Formed Roofing and
Siding Products
Galvannealed Sheets
Tin and Terne Plates
Sheets for Special Purposes
Stainless and Heat
Resisting Steel Sheets



American Sheet and Tin Plate Company

GENERAL OFFICES: Frick Building, PITTSBURGH, PA.

SUBSIDIARY OF UNITED STATES STEEL CORPORATION



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AMERICAN SHEET AND TIN PLATE COMPANY
AMERICAN STEEL AND WIRE COMPANY
CARNEGIE STEEL COMPANY
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COLUMBIA STEEL COMPANY
CYCLOPE FENCE COMPANY
FEDERAL SHIPYARD & DRY DOCK CO.

ILLINOIS STEEL COMPANY
MINNESOTA STEEL COMPANY
NATIONAL TUBE COMPANY

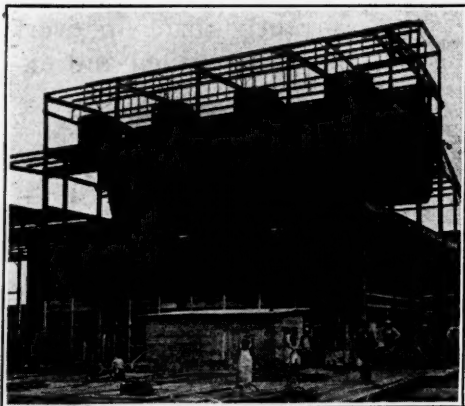
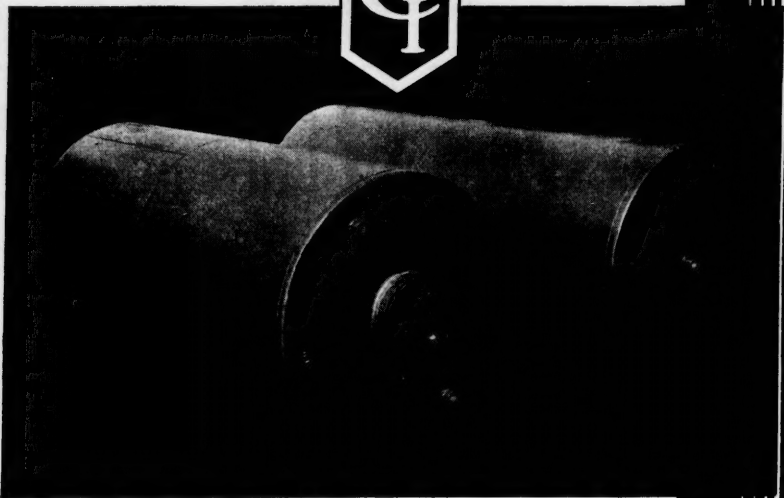
OIL WELL SUPPLY COMPANY
THE LORAIN STEEL COMPANY
TENNESSEE COAL, IRON & RAILROAD CO.
UNIVERSAL ATLAS CEMENT COMPANY

Export Distributors—United States Steel Products Company, 30 Church Street, New York, N. Y.

TENNESSEE STEEL—

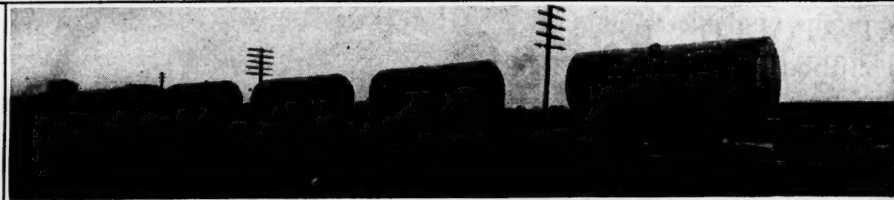


in
**SMALL
TANKS**



Thousands of tons of Tennessee Plates and Sheets are annually consumed in the manufacture of small storage and miscellaneous tanks. Adapted either to welded or riveted construction and furnished in all standard qualities and finishes, Tennessee products admirably fulfill the requirements of the tank builder.

Tennessee produces a full line of rolled steel products, including in addition to the above, structural shapes, bars, rails and accessories, in standard and special analyses.



TENNESSEE COAL, IRON & RAILROAD COMPANY

General Offices: Brown-Marx Building, Birmingham, Ala.

Subsidiary of United States Steel Corporation

AMERICAN BRIDGE COMPANY
AMERICAN SHEET AND TIN PLATE COMPANY
AMERICAN STEEL AND WIRE COMPANY
CARNEGIE STEEL COMPANY

PRINCIPAL SUBSIDIARY
COLUMBIA STEEL COMPANY
CYCLONE FENCE COMPANY
FEDERAL SHIPBUILDING AND DRY DOCK COMPANY

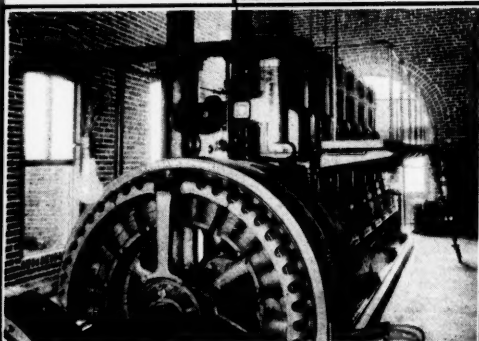
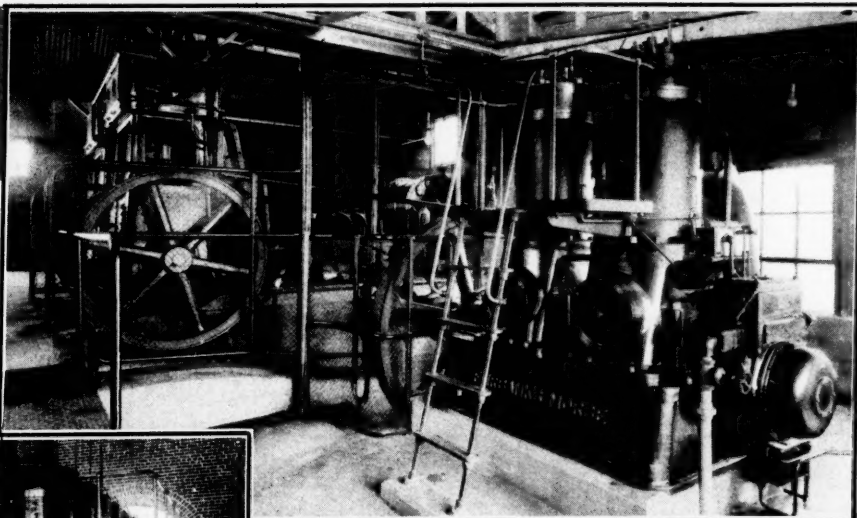
MANUFACTURING COMPANIES
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UNIVERSAL ATLAS CEMENT COMPANY

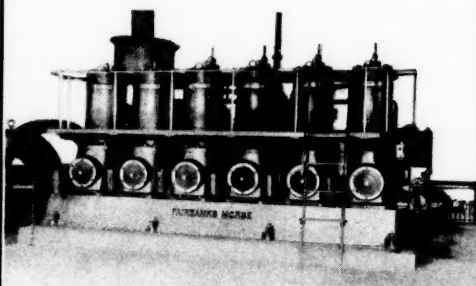
Pacific Coast Distributors—Columbia Steel Company, Russ Building, San Francisco, Calif.

Export Distributors—United States Steel Products Company, 30 Church Street, New York, N. Y.

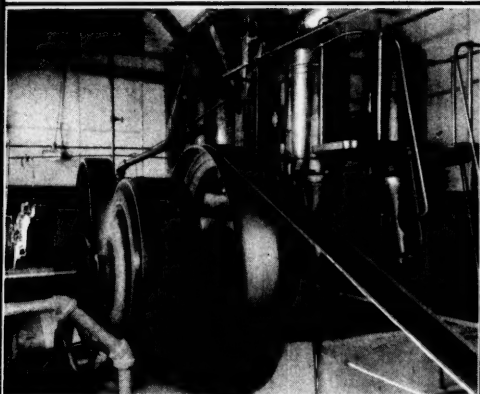
120 hp. F-M Diesel driving three compressors in the plant of the Grand Rapids Welding Supply Co., Grand Rapids, Mich.



This 360 hp. F-M Diesel is the latest unit added to the municipal plant at Green Cove Springs, Florida.



F-M Diesel supplies economical power for silk manufacture. This 360 hp. engine is installed in the plant of the Widder Bros. at Emaus, Penn.



Low cost power for operating pneumatic tools and other auxiliary equipment is supplied by this 120 hp. F-M Diesel, owned by the Jurras Granite Co., of Montpelier, Vt.

25 to 1400 horsepower

WHATEVER the power requirement—steady, stand-by or auxiliary—there is a Fairbanks-Morse Diesel Engine to suit the need. F-M Diesels are built in a wide range of sizes from 25 to 1400 horsepower.

Any size or model can be specified with absolute assurance of unsurpassed operating economy and dependability. Every F-M Diesel Engine possesses the same characteristics that have placed this name in a position second to none in the industry. Fairbanks-Morse is the largest manufacturer of Diesel engines in America.

In actual service, F-M Diesels have shown consistent economies that will interest engineers and executives who are concerned with power costs. Fairbanks-Morse engineers will present the facts upon request without obligation to you.

FAIRBANKS, MORSE & CO.
900 South Wabash Ave., Chicago
32 branches at your service throughout the United States

FAIRBANKS-MORSE

DIESEL ENGINES

POWER, PUMPING AND WEIGHING EQUIPMENT



YES



... there is
a difference
in

Ball Bearing Motors



And there is one sure way to prove it!

Eighteen years ago, Fairbanks-Morse pioneered the ball bearing motor in the firm belief that the improved reliability and lower maintenance cost of this type of motor would inevitably win industry-wide acceptance. The soundness of this belief has been proved.

Today, ball bearing motors are made by practically every motor manufacturer. But this does not mean that all ball bearing motors are alike. The invaluable experience gained in eighteen years of painstaking field research is reflected in the outstanding performance that is responsible for F-M leadership in the ball bearing motor field today.

There is one sure way to prove F-M

superiority. Make a comparative inspection of Fairbanks-Morse motors and other motors. Check construction details point by point. Study the advantages of F-M *sealed* bearing construction which incorporates the **highest priced ball bearings in the world**... *then* you will understand why users of F-M ball bearing motors specify them year after year for service that requires maximum dependability and lowest overall operating cost.

It will pay you to get the facts. Let us send literature or let a Fairbanks-Morse engineer discuss F-M motor advantages as they apply to your particular requirements. There is no obligation.

FAIRBANKS, MORSE & CO., 900 S. Wabash Ave., Chicago

32 branches at your service throughout the United States



FAIRBANKS-MORSE MOTORS

EOA 48.5

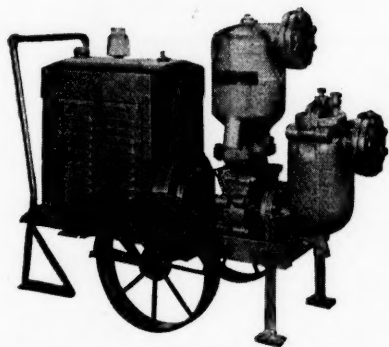


The lives of your men do not depend upon the continuous performance of your pumps, but your profits most certainly do. Failure of a dewatering machine for one day means that many productive hours are lost; your other equipment must stand idle and part of your payroll must go on just the same.

LaBour contractors' pumps have earned a reputation for never laying down on the job. Continuous performance day-after-day, under even the most severe conditions, has been delivered by LaBour pumps on thousands of jobs. This ability to "stand the gaff" is not merely luck, nor is it entirely due to the heavy materials and careful workmanship which go into LaBour pumps.

LaBour Self-Priming Centrifugal Pumps have only one moving part. That is the secret of their performance records. There are no valves, floats, or other auxiliary apparatus; with only one moving part, LaBour pumps are far less vulnerable to accident or careless operation.

No other pump offers you the assurance of continuous operation and, therefore, continuous profits which may be had from LaBour.



This is the LaBour Type WPD, the newest addition to the LaBour line. Complete, including four-cylinder gasoline engine, the outfit weighs less than one thousand pounds and may be easily moved about and placed by one man. Write for special bulletin.

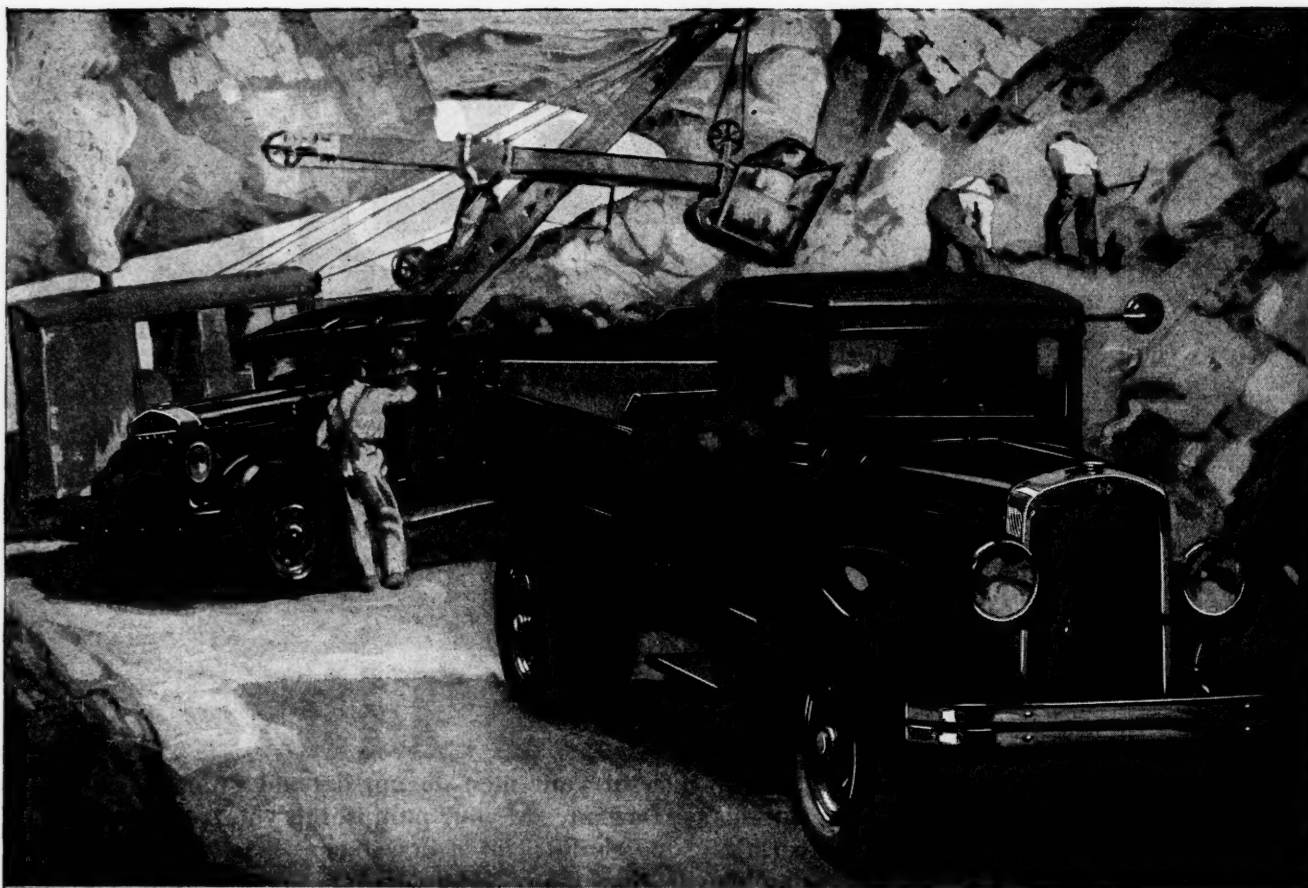
THE LABOUR COMPANY, INC.

403 STERLING AVENUE

ELKHART, INDIANA

LABOUR PUMPS

NEVER LAY DOWN ON THE JOB



BUILDING THE HIGHWAYS OF PENNSYLVANIA

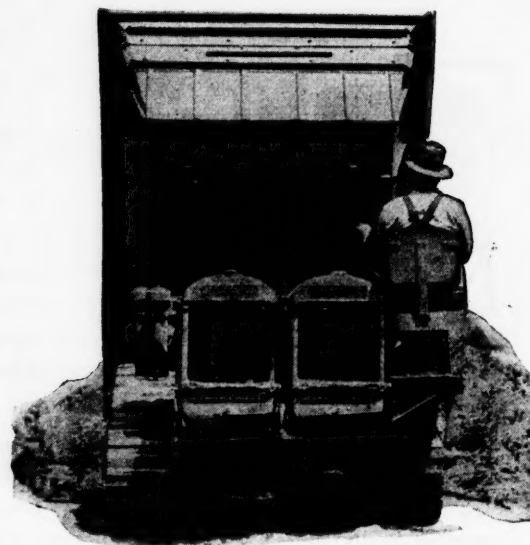
THIS is a story of roads in Pennsylvania—a story of International Trucks. Pennsylvania knows full well that no state can afford to neglect her roads. She has gone on extending the vital arterials so that commerce may flow unobstructed and free. During 1930 over eighty million dollars were invested in major construction, replacement, and maintenance work by the Pennsylvania Department of Highways.

During 1930, over seven hundred International Trucks helped to build the highways of this state alone—a surprising total, indicating the vogue of International haulage among construction men.

Whatever the emergency, Internationals fill the bill and add to their reputation. Everywhere their owners attest their sterling performance and economy. Entrust your own hauling to trucks like these—they will give you both speed and stamina in good measure.

The new International Trucks range from $\frac{3}{4}$ -ton to 5-ton. The nearest of 183 Company-owned branches in the United States and Canada will be glad to demonstrate any model for you.

INTERNATIONAL HARVESTER COMPANY
606 So. Michigan Ave. OF AMERICA
(Incorporated) Chicago, Illinois



MCCORMICK-DEERING POWER

Here is a striking example of the variety of equipment operated by McCormick-Deering Power. Two Power Units are the "heart" of this big dirt-moving unit. Equipment to be powered by McCormick-Deering is built by 120 manufacturers. See the nearest branch, or any McCormick-Deering distributor or dealer.

INTERNATIONAL TRUCKS




ENDURING THE ELEMENTS

IN the corrosive atmosphere of great cities and in various uses on land or sea, copper-steel pipe endures exposure far better than ordinary steel. Likewise in any alternate wet and dry conditions resembling those of outdoor exposure, its durability is greatly superior. That has been established by long experience, beyond question.

You can lengthen the useful life of vents, soil and waste lines, rain leaders, and any similar installations by specifying this modern, scientifically made, and durable pipe. Let us send you Bulletin 11, describing the advantages of NATIONAL Copper-Steel Pipe—

The Original Copper-Steel Pipe

NATIONAL TUBE COMPANY, Pittsburgh, Pa.
Subsidiary of United  States Steel Corporation

NATIONAL COPPER-STEEL PIPE

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ARCHITECTS

ENGINEERS

CHEMISTS

GEOLOGISTS

CHEMICAL ENGINEERS

ACCOUNTANTS

CONTRACTORS

Detailed classification of specialized work undertaken by those having cards in this Directory will be found in Classified Index.

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Wm. J. J. Chase, A. I. A.

Architect

Public and Commercial Buildings
140 Peachtree St. ATLANTA, GA.**G. Lloyd Preacher & Co., Inc.**

Architects and Engineers

1204 Wynne Claughton Bldg.
ATLANTA, GA.**B. Russell Shaw Co.**

INCORPORATED

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AIRPORTS—AIRLINES
Arcade Bldg., ST. LOUIS, MO.**Leslie N. Boney**

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WILMINGTON, N. C.**J. B. Converse & Co., Inc.**

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plans, estimates, supervision.
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WEST PALM BEACH**Elroy G. Smith**Consulting and Designing
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a Specialty
313-313-A Herald Bldg.,
AUGUSTA, GA.**Hornbuckle Contracting Co.**

INCORPORATED

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Industrial Village Utilities
ATLANTA, GA.**Harza Engineering Co.**

Consulting Engineers

Dams, Hydraulic, Hydro-Electric, Flood
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20 N. Wacker Drive CHICAGO**S. E. Huey**

Consulting Engineer

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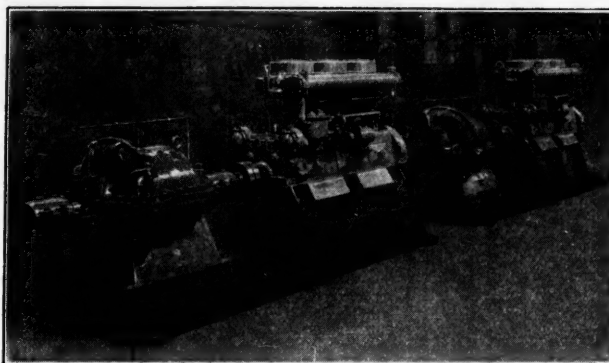
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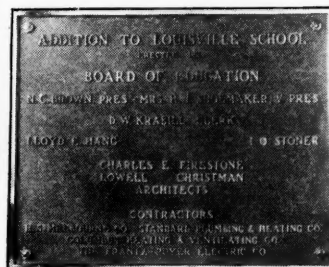
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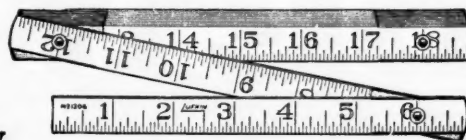
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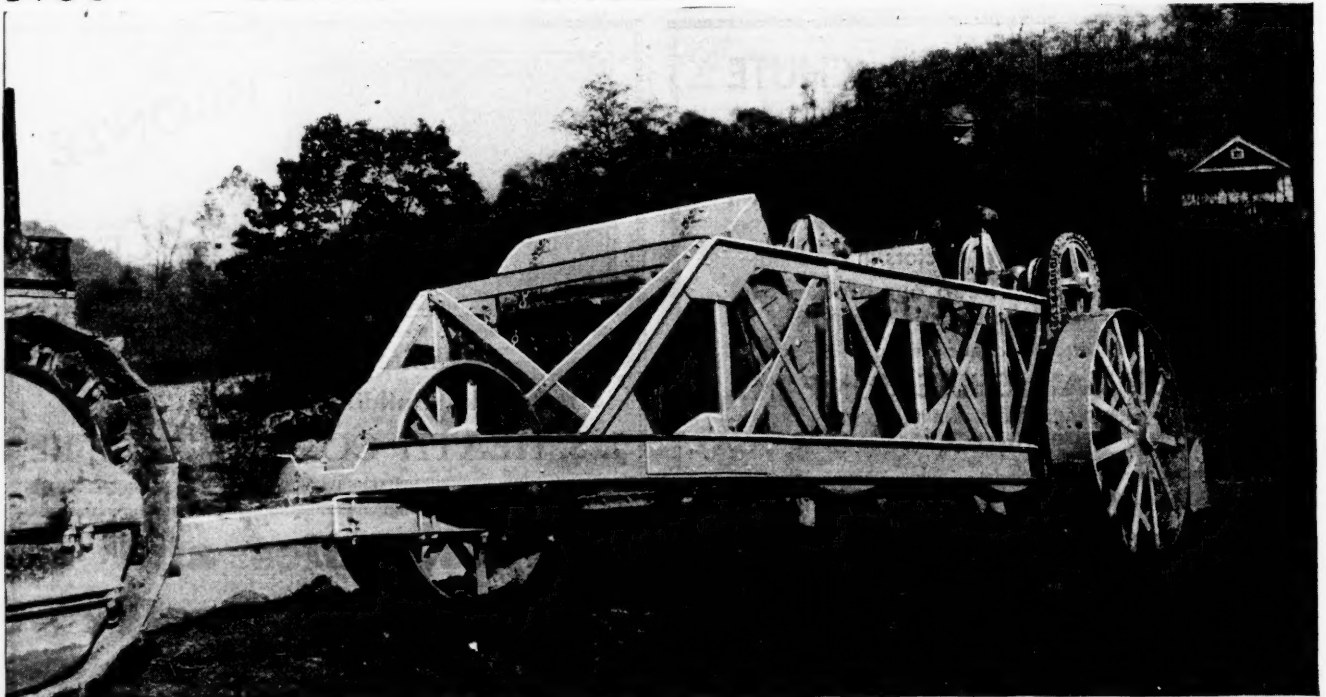
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Baltimore, Md., April 2, 1931

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Baltimore, Md.

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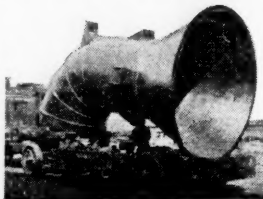
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Vol. XCIX No. 14 }
Weekly }

BALTIMORE, APRIL 2, 1931

{ Single Copies, 20 Cents.
\$6.50 a Year }

Industrial Expansion

WITHIN the past week reports of expansion programs in various parts of the South have been of a most encouraging nature. In fact, the volume of construction news published in the MANUFACTURERS RECORD March 26 was the heaviest in the last six months. Such reports afford evidence of the returning confidence of business leaders by their willingness to start building operations, factory development and engineering work.

As the Atlanta Constitution remarks, "Keen economic observers in the East have their calculating eyes upon what is going on in the South." Then it editorially proceeds to picture a modernized, busy, populous, rich and powerful South, pointing out the trends and new developments that have a direct bearing on the future prosperity of this section.

Diversified farming is receiving greater attention by the South than ever before. Through the efforts of business and educational conferences and farmer organizations, the necessity of regarding cotton as a surplus crop and making a diversified agricultural program the main reliance is becoming more universally accepted as the only way to bring about continuous prosperity.

The inevitable growth of manufacturing, based upon the raw materials of the farm, as science and research broaden the markets for farm products and by-products for this purpose, is toward the South by reason of its geographical location. Its long growing season permits not only the production of one crop but two or more crops in some sections. Successful farming in the future will be more intimately connected with manufacturing, and the actual working time of the farmer will have to be spread over a greater part of the year to reduce his overhead.

It took the South more than 50 years to secure the dominance in cotton manufacturing in the United States. In the creation of the newer industries utilizing cellulose products, the South is making amazing progress. Only a few years ago the first rayon plant was established in the South. Today this section has some of the largest plants of that kind in the world.

With the building of the first kraft paper mill, there have followed in rapid succession many other paper mills and today this section is on the threshold of the establishment of a white paper manufacturing industry which through proper forestry methods can be made a permanent development, for the South has learned its lesson by the wasteful logging operations of the past. It has a well-established building board industry utilizing wood waste, sugar cane waste and wheat straw. From its rice hulls it is making cellulose. Experts say that the South, because of its climate, which is conducive to rapid growing and luxuriant vegetation, can become the cellulose-producing and manufacturing region of the country.

Other metallic and non-metallic raw materials in wide variety and almost inexhaustible quantity are contributing to the industrial expansion of this section. Materials for fertilizer manufacturing, for chemical manufacture, for metallurgy, and clays for ceramic products are being utilized and developed and may form the foundation for many other great and growing industries throughout the South.

From week to week reports of new industries being established in the South show the steady expansion under way. Among such projects announced in a ten-day period are the erection of a \$1,500,000 rod and wire mill at El Paso, Texas; a \$500,000 oil refinery at Texas City; work going forward on a \$1,000,000 cellulose acetate yarn mill at Kingsport; proposal to establish a \$1,000,000 electric plant at Galveston; the erection of a \$350,000 car icing plant at Kansas City; work started on a \$900,000 telephone exchange in St. Louis; a \$1,000,000 grain elevator under construction at Kansas City; \$500,000 addition to a packing plant in Atlanta and a \$1,000,000 oil pipe line to be constructed from East Texas fields to Shreveport; 110 miles of gas pipe line and 8 city distributing systems to be constructed in Western Missouri and a 70-mile railroad line to be built in Southwest Texas. Included in recent announcements of new building operations are the following: Contract awarded in New Orleans for a \$2,500,000 store building; a \$1,000,000 market and garage proposed in Washington; archi-

tests selected for a 15-story office building in Oklahoma City, and a \$1,000,000 contract was awarded for a railroad office building in Galveston.

Every day adds to the list.

Making Cotton Popular

AT several points in the South there have been held cotton exhibits in order to promote and stimulate the use of cotton products. As the producer of the staple and the dominant manufacturer of cotton goods in the country, the South should take the lead in popularizing cotton materials. The wonder is that Southern people have not done more to advertise and advance the use of cotton among themselves. At least there are signs that the South is beginning more fully to recognize that it is a consumer as well as a producer and that it has been neglecting a valuable opportunity to increase demand at home.

A great Southeastern cotton festival is to be held in Anderson, S. C., April 9-10. Five nearby states will participate. A cotton fashion show and numerous exhibits from over the Southeast are the main features of the festival. In addition, a cotton ball and pageant will be among the entertainments provided. The event is sponsored by the women of Anderson who have conducted one of the most intensive "wear more cotton" campaigns in the South.

The MANUFACTURERS RECORD endorses this constructive movement. It believes that business leaders from other communities could with profit attend the cotton festival at Anderson. Perhaps from it they could obtain some valuable suggestions on how to increase interest in the use of cotton in their own communities. Anderson's efforts to popularize cotton might well be emulated by every Southern city.

Exports and the Tariff

AMONG the alleged causes for the business depression is the shrinkage of American export trade due to the American protective tariff. Foreign countries cannot sell to the United States, it is argued, and therefore cannot buy American goods. Inferentially, it appears that only free trade or a revenue tariff can revive the American export business.

Figures of the past prove such an argument to be fallacious. As only two low-tariff laws have operated in the last 38 years, and one of these was soon affected by the World War, comparative statistics are not numerous; but, they speak eloquently.

In 1893 and 1894, under the McKinley protective tariff law, American merchandise exports totaled \$1,730,000,000; in 1895 and 1896, under the Wilson low-tariff measure, they showed \$1,680,000,000. The last year of the Wilson law, 1897, showed \$1,050,000,-

000 in American exports, while the first year of the Dingley protective law, 1898, showed \$1,230,000,000.

Under the Payne-Aldrich protective law, American exports for 1912 and 1913 were \$4,600,000,000, compared with \$5,100,000,000 under the Underwood-Simmons low tariff in 1914 and 1915, with heavy foreign demands in the time of the World War.

In 1929, under the Fordney-McCumber high tariff, American exports ran to \$5,240,000,000, or \$120,000,000 more than each of the years 1914 and 1915 showed under the low-tariff law.

On the import side of the American ledger, the figures are equally illuminating, as disclosed in an accompanying table.

Tariff Law (fiscal years)	Exports	Imports	Per Cent free
McKinley (Protective)			
1893	\$847,665,000	\$832,733,000	51.9
1894	892,141,000	630,108,000	59.1
Wilson (Low tariff)			
1895	807,538,000	731,162,000	51.5
1896	882,607,000	759,694,000	48.5
1897	1,050,994,000	789,251,000	48.3
Dingley (Protective)			
1898	1,231,482,000	587,154,000	49.6
1899	1,227,023,000	685,442,000	43.7
1900	1,394,483,000	830,519,000	44.1
1911	2,049,320,000	1,527,946,000	50.8
Payne-Aldrich (Protective)			
1912	2,204,322,000	1,640,723,000	53.7
1913	2,465,884,000	1,766,689,000	55.8
Underwood (Low tariff)			
1914	2,364,579,000	1,906,400,000	60.4
1915	2,768,589,000	1,648,386,000	62.6
Fordney (Protective)			
1923	4,167,493,000	3,731,770,000	58
1929	5,240,995,000	4,338,572,000	66.3

Particularly interesting in reference to American imports under high and low tariff measures are the figures on duty-free entries. In 1895, 1896 and 1897, under low tariff, the average per year duty free was 49.4 per cent, and in 1898, 1899 and 1900, under high tariff, it was 45.8 per cent, a difference of only 4.6 per cent. The heavy influx of foreign goods under the low-tariff enacted in October, 1913, was marked by industrial depression, unemployment and charity-aid, until the World War saved the American situation.

Shrinkage in the American export business is not due to a protective tariff. There has been a decline in world trade. Naturally the United States feels the effects of the reduced buying power of other countries which have had to curtail imports from whatever source.

Millions in Southern By-Products

FURTHER evidence that the South itself still is unable to realize the volume and the magnitude of its varied products is discerned in a disclosure by Dr. W. W. Skinner of the Department of Agriculture that even its so-called farm wastes actually are worth many millions of dollars. To this transmutation of waste into profit he would rally the economist, the engineer and the chemist.

In this mass of material, Dr. Skinner mentions

100,000,000 tons of cornstalks, 115,000,000 tons of cereal straws, 20,000,000 tons of corncobs, 1,800,000 tons of cottonseed hulls, 500,000 tons of sugarcane bagasse and 70,000 tons of peanut hulls. These, he adds, are composed of approximately 40 per cent cellulose, 30 per cent lignin and 30 per cent hemicellulose or carbohydrates.

Paper pulp can be made from a wide variety of crop by-products, Dr. Skinner adds, and other products are possible, while all the materials have a certain basic value on the farm for fertilization and to provide organic matter for the soil. Practical experiment through mill operation, he asserts, is the best method for determining profitable uses for these unutilized by-products, and many plants of many kinds in many parts of the South may find such experiments worthwhile.

Mineral Values Better

THE estimated total value of all minerals produced in the United States last year was approximately \$4,795,000,000, states the Bureau of Mines. It will be a surprise to many to learn that this represents a decline in mineral values of only 18 per cent, compared with 1929. In fact, the decrease in value of output last year was nothing to compare with the decline following the deflation of 1920 when a drop of 40 per cent in the value of mineral products was experienced. It is encouraging to learn that this basic industry as a whole did not reach the depths to which it had descended in past depressions.

It is of record, nevertheless, that in some branches of the mining industry the decrease in activity was pronounced. The total value of metallic products in 1930 decreased about 33 per cent as compared with 1929. Notable decreases in total values were recorded for copper, iron, silver, lead and zinc. The total value of non-metallic mineral products in 1930 decreased only about 15 per cent from the preceding year.

One striking fact was developed by the report. Of the mineral fuels, the total value of natural gas increased. This gain was made in the face of sharp declines in the value of bituminous coal and petroleum. The natural gas industry in 1930 set a record in expansion, when \$200,000,000 was invested in pipe lines to supply new markets in the Southeast and Central West.

As the South produces about two-thirds of the natural gas and about one-third of the entire mineral output of the nation, it is vitally interested in any analysis of mineral production or conditions. While the report, as was to be expected, confirmed estimates of a decrease in output, in the main it should encourage business to know that conditions were not quite as bad as they had been thought to be. An 18 per cent decrease in mineral production certainly offers a more hopeful outlook for the present than the 40 per cent decrease which the country faced at the beginning of 1922.

Building for the Future

THE Norfolk & Western Railway Company, like other railroads, experienced a sharp decline in freight and passenger traffic during 1930. However, in its annual report it states that the decreases, amounting to 14 per cent in operating revenues and 24 per cent in net income as compared with 1929, and ascribed to the general depression in business, are offset to a considerable extent by reduced expenses and an unusual operating efficiency.

Embodied in the report is other comment which indicates that better conditions are in prospect for the future. We refer to the very significant statement that in spite of general curtailment of production throughout the country in 1930, the territory served by the Norfolk and Western continued to develop and grow. The report reveals the splendid record of a total of \$44,180,000 invested in the establishment of new industries and in expansion of plants already established, an increase of approximately \$5,000,000 over the amount invested for the same purpose in 1929. Included in the new industries last year were 19 manufactories of food and kindred products; seven of textiles and their products; eight of forest products; ten of chemicals and allied products and 24 of miscellaneous products.

In addition, persons coming into the Norfolk and Western's territory purchased and settled on 63 farms, involving an investment of about \$1,378,000, an increase of more than \$1,000,000 over 1929.

Furthermore, the Norfolk and Western invested \$14,250,000 in its own road and equipment during 1930. Included in the new equipment received during the year were five steam passenger locomotives, ten steam freight locomotives built at its own shops in Roanoke, 727 all-steel, 50-ton capacity box cars, 470 all-steel, 90-ton capacity gondola coal cars, all built at the Roanoke shops, and 3400 all-steel, 57½-ton capacity hopper coal cars.

Building for the future would seem to be the watchword of this railroad and the territory it traverses.

Would Strengthen Russia's Bonds

IN one brief paragraph, Senator Borah offers an excuse for American recognition of the Soviet and knocks the props from under his own argument:

"The three great instincts of mankind are religion, family and property. Let us admit that those who govern and dominate Russia are against all these. The government may be, but not the people."

This is an ultra-fine distinction between the Soviet government and the Russian people in the mass. It is the Soviet government which opposes religion and the home and freedom that Senator Borah would have America recognize officially. American recognition would strengthen the Soviet government and weld the chains still more firmly on millions of misled people.

Air Transport *in the* South

By
GEORGE GARNER



A "Diving Bomber" Built by a Baltimore Plant

This Martin Model XT5M-1 is one of the late type military planes, produced this year in the big plant of the Glenn L. Martin Co., Baltimore

EXPENDITURES of \$20,000,000 for airports in various states and \$8,000,000 by the Federal Government on airways, in the current year, may be multiplied many times for a reasonable estimate of the economic importance of aeronautics in the United States. As Director George W. Lewis of the National Advisory Committee for Aeronautics predicted several years ago in the *MANUFACTURERS RECORD*, the investment and profit for the South are of full sectional proportion.

Of 36,720 miles of American air-transport routes now in operation, the South has approximately 20,000, or more than 50 per cent. Of 12,000 miles of American connections with foreign lands, the South has about 7000, or almost 60 per cent.

Airport expenditures in the United States to January 1 of this year amounted to \$115,000,000, of which \$20,300,000, or 17.8 per cent, was in the South.

Planned for airport investment in the

latter part of 1930 and the first half of this year is \$20,200,000 for the country, \$4,300,000 in the South representing 21.3 per cent of the total.

Of the aggregate American investment in airports, \$58,200,000 has been put into municipal airports, and to this item the South contributes \$14,100,000, or 24.2 per cent.

Included in the contemplated airport investment of \$20,200,000 is the municipal airport item of \$15,700,000, in which the South is interested to the extent of \$3,800,000, or 24 per cent.

With 471 airports and landing fields, the South has 26.4 per cent of 1782 in the United States. One hundred and seventy Southern municipal airports represent 31 per cent of 550 in the land, and

117 Southern commercial airports are 21 per cent of 564 such fields in all the country.

In the line of aircraft, the South is credited with 2116, which is 21.5 per cent of 9818 in the United States at the first of this year.

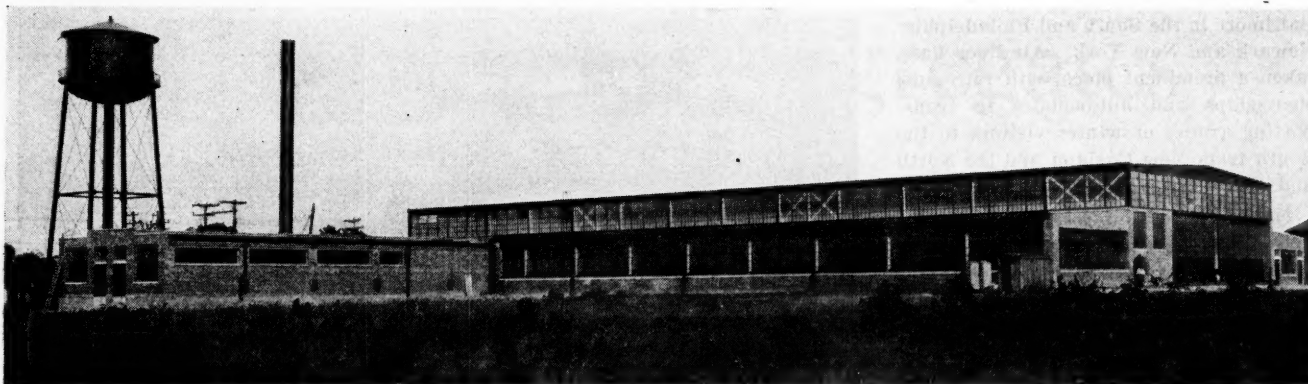
The 2438 Southern pilots recognized by the Department of Commerce form 16 per cent in the national registry of 15,280.

A list of Southern communities proposing the establishment of airports, compiled for the *MANUFACTURERS RECORD* by the Aeronautics Branch of the Department of Commerce, contains 262 names of cities and towns, divided among the States as follows: Alabama, 10; Arkansas, 17; Florida, 25; Georgia, 17; Ken-



One of the Newest and Most Complete Airports in the South

The Baton Rouge (La.) Airport Commission will officially dedicate its airport sometime in May. The airfield, consisting of 200 acres, is completely sodded. Here are pictured the Administration Building and the hangar. A 3,000,000 candle power floodlight, a powerful tower, and revolving beacons are outstanding features.



B/J Aircraft Corporation Plant at Baltimore

This company is manufacturing 25 YP-16, two-seat pursuit planes for the United States Army. Delivery is to begin in May, to be completed by August or September. The planes are to be equipped with 600 horsepower super-charged Conqueror engines, and the estimated speed is 200 miles an hour. The company is manufacturing also a two-seat, light observation, experimental plane for the Navy, rated for use aboard light cruisers. It is equipped with a Wasp, Jr. engine, developing 400 horsepower, and has an estimated speed of 150 miles an hour.

tucky, 10; Louisiana, 11; Maryland, 6; Mississippi, 14; Missouri, 14; North Carolina, 14; Oklahoma, 20; South Carolina, 11; Tennessee, 21; Texas, 40; Virginia, 20; West Virginia, 12.

Roughly speaking, detailed figures from the Aeronautics Branch indicate that capital expenditures for airports involve 50 per cent for land, 17 per cent for hangars, 3 per cent for draining, 3 per cent for hard surfacing and the remaining 27 per cent spread over clearing and grading, seeding and fencing, lighting equipment, administration and other buildings, shop and firefighting and fuel equipment and so on.

The longest air-transport line in the United States is 1932 miles, between Chicago and San Francisco. Not far behind this in air-distance are the routes between Dallas and Chicago, 1009 airway miles; Dallas and Los Angeles, 1215; Amarillo and Columbus, 1032; Kansas City and Los Angeles, 1266. Southern cities are terminal points in 48 of approximately 100 regular American routes and eight out of 14 United States and foreign lines.

Notwithstanding keen rivalry from other areas, the South became this year preeminent in the field of commercial aeronautics, Tulsa, Okla., retaining its title as the busiest airport in the United States. Records for 1930 show that Tulsa handled 175,000 passengers—and handled this army without an accident. Second in the country was Newark, N. J., with 50,000 for the year, but with avowed ambition to pull up to Tulsa.

For the country as a whole, air transports last year carried more than 5,000,000 passengers, possibly a major percentage flying to and from the South and over the Southern route in passage from the east coast to the west.

"We find that the best routes lie over the South for traffic through to the West," said Dr. Lewis in the MANUFAC-

TURERS RECORD, December 22, 1927. "In summer, of course, conditions are good, and in winter the Southern route assures escape from snow and cold. Possibly, no factor in air transportation is more important than atmospheric conditions."

So it was that all cities on the New York-Atlanta airway were represented

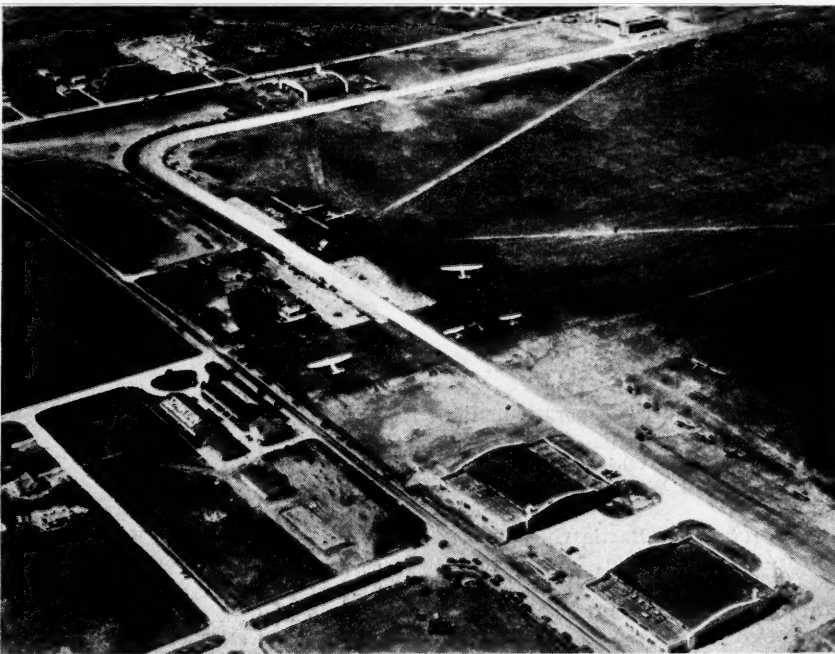
at the opening passenger flight last December, when 10 large air transport planes of Eastern Air Transport, Inc., carrying officials of the Postoffice Department, aviation and other business organizations, opened that route. A passenger airline was inaugurated in August between Richmond, Washington and

Tulsa's Municipal Airport Handles Record Number of Passengers

The Tulsa Airport became a municipal airport when on February 4, 1930, \$650,000 was voted as one item in a \$6,230,000 bond issue to buy the airport from a group of business men who underwrote the original purchase. Beginning with that month, the port for seven consecutive months led the airports of the world in number of persons cleared in and out over commercial air lines, the total for the period being 66,988. In June, 1930, over 11,000 passengers cleared in and out over commercial lines.

Nearly every air center in the nation is reached by diversified groups of operating mail and passenger service. Consolidation of the T. A. T.—Maddux lines with the Western Air Express put Tulsa on the transcontinental mail and passenger line of these interests. Inauguration of service over the lines of Braniff Airways, Bowen Airlines and Western Air Service gives Tulsa outlets to Houston, Fort Worth, Dallas, Wichita Falls, Oklahoma City, Omaha and Kansas City. Passenger service on the Chicago-Kansas City-Tulsa-Dallas line of National Air Transport, which opened February 1, this year, adds further service to these points.

The airport consists of 420 acres. It is fully lighted for night flying, and carries a Department of Commerce rating of A-1. Nearby are the Spartan School of Aeronautics and the plant of the Spartan Aircraft Corp. Weather information is supplied by Radio Station KCAA. Equipment is now being installed for the guiding of planes in darkness or fog through use of the radio range beacon.



Baltimore in the South and Philadelphia, Newark and New York. Air lines have taken a prominent place with railroads, steamships and automobiles in transporting armies of winter visitors to the South from New England and the North and the West.

Of particular interest in aeronautic and many other circles has been the development of aerial photography in the South, where flood prevention work and other great engineering undertakings have been accelerated by aerial surveys.

This prominence of the South in the advancement of aeronautics in every phase has stimulated aviation industries, also. Thirty-three aircraft manufacturers in the South are named by the Aeronautics Branch of the Department of Commerce as follows:

American Eagle Aircraft Co., Kansas City, Mo.

Arkansas Aircraft Corporation, Little Rock.

Atlanta Aircraft Corporation, Atlanta.

Berliner-Joyce Aircraft Corporation, Baltimore.

Bird Wing Commercial Aircraft Co., St. Joseph, Mo.

Butler Aircraft Corporation, Kansas City.

Coffman Monoplane, Inc., Oklahoma City, Okla.

Command-Aire, Inc., Little Rock.

Commercial Aircraft, Kansas City.

Curtiss-Robertson Aircraft Corporation, Robertson, Mo.

Dixie Aircraft Corporation, Lynchburg, Va.

Doyle Aero Corporation, Baltimore.

Guardian Aircraft Corporation, St. Louis.

Inland Aviation Co., Kansas City.

Kreider-Reisner Aircraft Co., Inc., Hagerstown, Md.

McMullen Aircraft Co., Tampa, Fla.

Glenn L. Martin Co., Baltimore.

Miami Aircraft Corporation, Miami, Fla.

Moth Aircraft Corporation, Robertson, Mo.

Moundville Airplane Corporation, Moundville, W. Va.

Nicholas-Beazley Airplane & Motor Co., Marshall, Mo.

Parks Aircraft, Inc., East St. Louis, Mo.

Ryan Aircraft Corporation division of Detroit Aircraft Corporation, Robertson, Mo.

St. Louis Aircraft Corporation, St. Louis.

Southern Aircraft Corporation, Birmingham, Ala.

Spartan Aircraft Co., Tulsa, Okla.

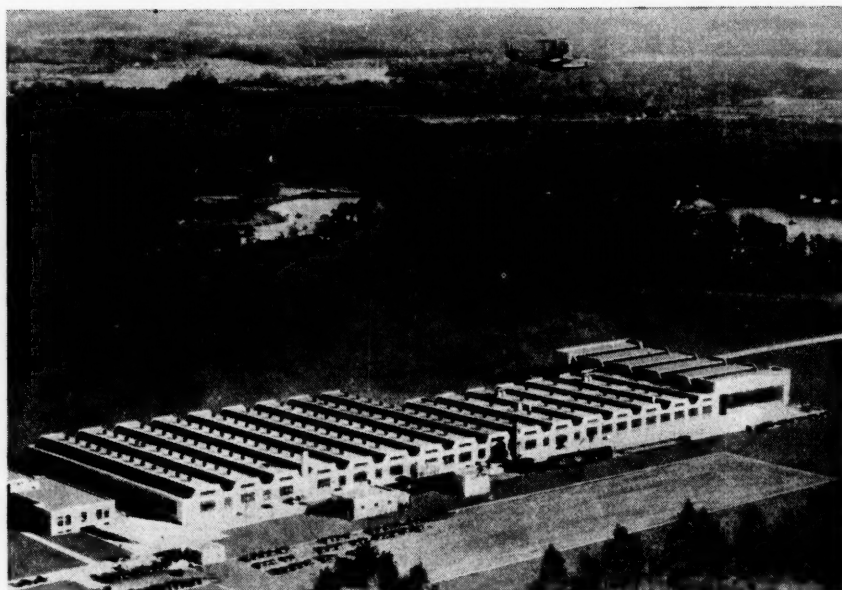
Standard Steel Works, North Kansas City, Mo.

Star Aircraft Co., Bartlesville, Okla.

Storms Aviation Co., Spartanburg, S. C.

Taft Airplane Corporation, Elizabeth City, N. C.

Texas Aero Corporation, Temple, Tex.



Huge Plant of the Glenn L. Martin Co., Baltimore

Approximately 1600 persons are on the payroll of this organization. The plant is normally organized to produce two airplanes a week, but an improved factory arrangement makes it possible rapidly to increase production schedules if necessary. The buildings pictured here comprise the first unit of the new factory. This unit in itself is probably the largest aeronautical factory in the world, and it is rated as one of the best equipped and arranged of the country's aircraft plants.

The company, among other developments, has pioneered the use of chrome molybdenum steel tubing, chrome molybdenum steel fittings, the use of alloy steel in welded construction and the use of alloy steel tubing for axles. The company also developed gasoline tank design by vibration testing. Each year, for the past five years, squadrons of Martin three-purpose planes have flown south with the Atlantic Fleet from Hampton Roads, and have been operated in Caribbean waters all winter. Reliability and rugged construction in this service are of primary importance, because the planes are often operated for months from an open beach without shore facilities for repair. Martin planes in naval service are said to have made a remarkable reputation for performance, reliability, ease of maintenance, interchangeability of parts, and general all-round ruggedness.

The Martin Company is now engaged in building 55 flying patrol bombers for the United States Navy and 9 monoplane flying boats. Other torpedo bombing planes for experimental purposes are being planned and constructed.

Van Cleve Airplane Co., Dallas, Tex.

Wilcox Aeronautics, Inc., Tulsa, Okla.

Also, the Newport News Shipbuilding & Dry Dock Company, Newport News, Va., was low bidder on construction of the hull and machinery of a new aircraft carrier for the Navy, at \$15,560,000, indicating another line of aeronautics industry in the South.

Gliners are manufactured by the Cook Glider & Sail Plane Co., Kansas City, Mo.

TOTAL AIRPORT EXPENDITURES

States	Expenditures to Dec. 31, 1930	Anticipated for last half 1930 and first half 1931
Alabama	\$1,156,000	\$200,500
Arkansas	387,500	217,000
District of Columbia	892,000	110,000
Florida	1,556,000	355,000
Georgia	532,000	162,500
Kentucky	142,000	6,000
Louisiana	327,000	104,500
Maryland	1,935,000	30,000
Mississippi	193,000	73,000
Missouri	4,787,000	1,240,000
North Carolina	721,000	90,000
Oklahoma	2,280,000	774,500
South Carolina	398,000	80,500
Tennessee	714,000	138,000
Texas	3,854,000	685,000
Virginia	322,000	40,000
West Virginia	134,000	23,500
Total	\$20,330,000	\$4,330,000
United States	\$115,068,500	\$20,225,000

AIRCRAFT AND PILOTS

States	(Airplanes—Li- censed	Unli- censed	To- tal	Pi- lots
Alabama	23	22	45	64
Arkansas	51	21	72	57
Florida	86	49	135	196
Georgia	40	34	74	71
Kentucky	46	19	65	91
Louisiana	86	15	101	91
Maryland	76	20	96	112
Mississippi	31	10	41	56
Missouri	274	91	365	490
North Carolina	55	38	93	86
Oklahoma	238	88	326	390
South Carolina	13	26	39	46
Tennessee	82	35	117	143
Texas	340	96	436	281
Virginia	50	18	68	195
West Virginia	32	11	43	69
Total	1,523	593	2,116	2,438
United States	7,354	2,464	9,818	15,280

AIRPORTS AND LANDING FIELDS

States	Mu- nicipal	Com- mer- cial	Other	Total
Alabama	5	5	9	19
Arkansas	7	5	4	16
Florida	21	12	11	44
Georgia	13	1	17	31
Kentucky	1	9	5	15
Louisiana	6	6	3	15
Maryland	1	7	9	17
Mississippi	9	0	2	11
Missouri	8	8	15	31
North Carolina	10	6	8	24
Oklahoma	19	15	18	52
South Carolina	7	5	6	18
Tennessee	5	4	6	15
Texas	49	17	53	119
Virginia	7	11	16	34
West Virginia	2	6	2	10
Total	170	117	184	471
United States	550	564	668	1,782

Lightweight Aggregates

By
T. H. MERRIAM
Portland Cement Association

WHEN the Wabash avenue bridge in Chicago was erected last fall, the roadway and sidewalks of the lift spans were paved with slabs of lightweight concrete. The average weight of standard concrete is approximately 150 pounds per cubic foot, whereas the concrete in these slabs weighs about 100 pounds per cubic foot. The reduction in weight was effected by the use of Haydite, one of the lightweight burned clay aggregates discussed in the MANUFACTURERS RECORD December 25.

These lightweight slabs and the concrete fireproofing in the frame of the 21-story Central Y. M. C. A. in Chicago are typical examples of one market for lightweight burned clay aggregates. Wherever weight is a factor in construction, there is a field for these materials. It is estimated that the weight of the building materials becomes an important factor when the height of structures is four stories or more.

A second important market for lightweight burned clay aggregates is in the

manufacture of concrete masonry units. For example, approximately 60,000 of these units were used for back-up walls in the Kalamazoo Trust & Savings Bank Building, Kalamazoo, Mich.

Such masonry is light in weight and results in decided economies in the labor of laying up the walls. The porous, cellular composition of the aggregate also

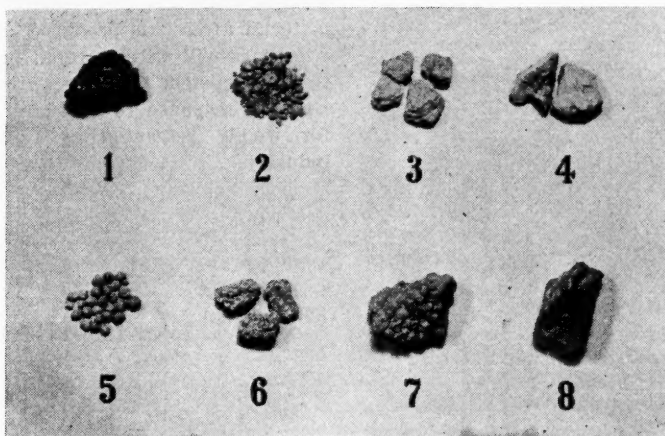
gives the units heat, sound and moisture insulating qualities that make them a desirable material for all types of masonry walls. The sound insulating value is particularly desirable in office, factory and apartment buildings. The heat and moisture insulating properties tend toward economy in building construction and operation. Furthermore, these units can be readily cut and channeled with common tools, for electrical and plumbing installations.

The demand for lightweight building materials has resulted in a country-wide effort to produce burned clay aggregates economically. Four processes were mentioned in the article in the MANUFACTURERS RECORD. It is interesting to list the various developments that are taking place at this time:

Haydite is made by burning clay or shale at high temperatures in a rotary kiln. Plants are in operation at Buffalo, Pittsburgh, Cleveland, Danville, Ill.; St. Louis, Kansas City, Toronto and Montreal.

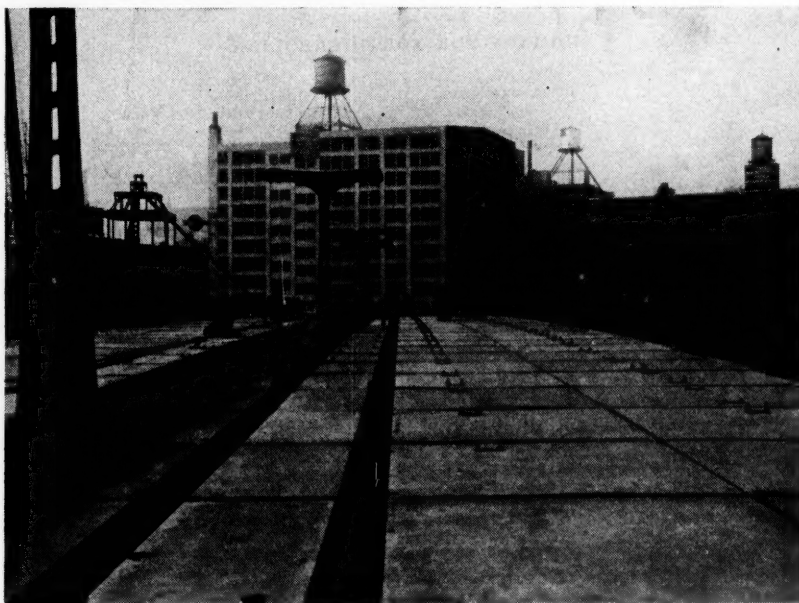
Lyttag, the patent on which is owned by F. A. Glass of Chicago, is made by mixing small particles of clay or shale with granulated coal and moisture and burning the mass according to the standard metallurgical sintering process. Experiments leading to commercial production are in progress in the Lehigh Valley in Pennsylvania, in Chicago and Detroit.

Corlite is produced by treating anthracite apartment house ashes chem-



Types of Lightweight Burned Clay Aggregate

(1) Haydite clinker as it comes from the kiln; (2) same material crushed and graded for aggregate; (3) porous burned clay for aggregate as produced at Columbia University; (4) burned clay railroad ballast from Texas; (5) Cel-Seal or Argelite; (6) one type of Lytag, made from clay near Chicago; (7) Lytag produced from clay deposits in Central Illinois; (8) porous volcanic lava rock



Courtesy Norman M. Stineman, Editor, Concrete

Wabash Avenue Bridge, Chicago, Showing Lightweight Concrete Roadway Slabs in Position with Bridge Closed

ically, adding a flux and sintering according to the standard metallurgical process. A plant for the commercial production of this material has been erected in New York City.

Cel-Seal is made by pugging a mix-



Kalamazoo Trust & Savings Bank Building,
Kalamazoo, Mich.

In this structure 60,000 lightweight burned clay aggregate masonry units were used for back-up

ture of dirt and clay and forcing it through a die, then cutting it in small sized particles, which are coated with a fine silica sand and burned in a rotary kiln.

Experiments at Columbia University have been successful in producing lightweight aggregate by dissolving carbon dioxide in water at atmospheric pressures, mixing with clay and burning the mass at 1700 to 2000 degrees F. in ordinary, down draft brick kilns.

In Texas, railroad ballast is made by piling alternate layers of clay and low grade coal, which are burned out. This material has been used for aggregate, but lacks uniformity in weight. Experiments are contemplated covering the burning of clay in this way to produce lightweight aggregate.

An investigation is contemplated in Seattle of the possibilities of producing lightweight aggregate by mixing sawdust from the lumber mills with clay and burning the mass to produce the aggregate. Three trans-continental railroads are investigating the possibility

of crushing the porous volcanic lava which is found in extensive deposits in Arizona, New Mexico, Idaho and Utah into lightweight aggregate.

From present indications, the possibilities for commercial production of lightweight, burned clay aggregate are almost as unlimited as the market for the material after it is produced. The next five years will witness rapid progress in the development of these various materials in response to the large demand for weight reduction by the building industry.

Developing Big Macon Estate

Macon, Ga.—A tract of 100 acres of land adjoining Ingleside Estates here has been purchased by North Winship, American Consul General, Copenhagen, Denmark. The property also adjoins another tract of 100 acres owned by Mr. Winship and the entire acreage will be developed into a fine estate. Plans call for a considerable amount of work over a period of years, the development to include the erection of a residence and other buildings.

North Carolina Manufactures Valued at \$1,301,319,000 in 1929

The Bureau of the Census announces the following summary statistics for the State of North Carolina, compiled from data collected at the census taken in 1930, which covered manufacturing activities in 1929: Number of establishments, 3792; number of salaried officers and employees, 16,507; number of wage earners (average for the year), 208,068; salaries paid, \$37,755,966; wages, \$159,794,761; cost of materials, \$591,449,925; cost of fuel and purchased current, \$22,690,076; value of products, \$1,301,319,152; value added by manufacture (value of products less cost of materials, fuel, and purchased current), \$687,179,151; horsepower (rated capacity) of prime movers, 320,814; horsepower of electric motors

driven by purchased current, 582,997. The number of wage earners and the value of products represent increases of 1.7 and 12.7 per cent, respectively, as compared with 204,590 wage earners and products valued at \$1,154,646,612 reported for 1927, the last preceding census year.

The census of manufactures covers manufacturing and printing and publishing establishments whose products made during the census year were valued at \$5000 or more.

The following table gives summary figures for North Carolina as a whole, and for cities having 10,000 inhabitants or more. These figures are preliminary and subject to revision.

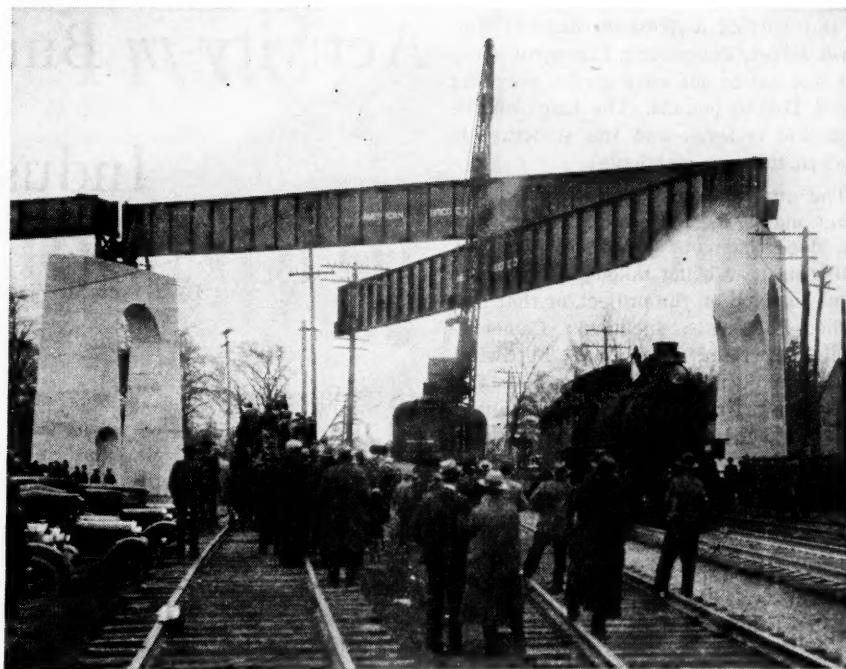
SUMMARY FOR NORTH CAROLINA

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, fuel and purchased current	Value of products	Horsepower
The State:						
1929	3,792	208,068	\$159,794,761	\$614,140,001	\$1,301,319,152	903,811
1927	2,984	204,590	158,394,434	560,819,236	1,154,646,612	810,798
1919*	5,999	157,659	126,680,099	526,906,181	943,807,949	549,808
Cities: 1929†						
Asheville	46	983	\$1,131,175	\$4,199,092	\$7,998,480	4,944
Charlotte	143	6,648	6,765,973	34,265,429	57,915,679	24,089
Durham	62	7,172	5,974,348	41,464,215	137,645,909	29,141
Elizabeth City	19	374	308,025	652,427	1,387,148	2,118
Fayetteville	33	1,288	802,073	3,054,747	5,457,762	5,798
Gastonia	53	4,850	3,581,817	10,304,491	18,605,132	20,447
Greensboro	26	1,206	1,026,235	3,041,404	5,493,104	5,838
High Point	92	6,811	5,665,076	23,160,203	38,782,076	23,223
Kinston	111	11,042	9,748,690	29,084,991	52,185,880	19,498
New Bern	19	515	322,730	1,194,343	2,217,985	2,038
Raleigh	29	1,550	1,128,731	1,713,046	4,016,632	5,966
Salisbury	46	1,318	1,410,920	2,433,259	6,004,272	4,324
Statesville	40	1,577	1,290,690	4,129,069	7,353,787	6,166
Wilmington	40	1,890	1,384,788	6,563,092	10,621,381	6,870
Wilson	41	1,398	1,234,713	3,453,112	6,583,793	5,729
Winston-Salem	30	633	533,703	3,385,815	5,283,469	5,069
	85	15,895	13,462,979	98,833,925	291,161,279	26,752

*The figures for 1919 refer to all establishments having products valued at \$500 or more, whereas the minimum value-of-products limit for subsequent years was \$5000. This change had very little effect on the comparableness of the figures for different census years with the exception of those for number of establishments.

†The cities covered in this report are those for which summary statistics were assembled and published (in mimeographed form) at the biennial census for 1927. In addition, Concord, Rocky Mount, Shelby and Thomasville were reported at the 1930 census of population as having more than 10,000 inhabitants. Statistics for each of these cities for which it is possible to give separate figures without disclosing an approximation of the data for individual establishments will be available later.

Seaboard Bridge *at* Petersburg, Va.



Erecting a Long Span in the New Bridge

This span consisted of two deck plate girders, each 131 feet long and weighing 116,000 pounds

THE Seaboard Air Line Railway in February placed in operation a new bridge across the Appomattox River at Petersburg, Va. It consists of a wood trestle and a part steel bridge, affording a river crossing on a better alignment. Work began in July, 1930, following the

award of contract to the Cornell-Young Company of Macon, Ga., for the concrete foundations. Contract for steel work was awarded to the American Bridge Co. Steel erection started in November and was completed the latter part of January, 1931.

The new project consists of concrete foundations and about 2400 lineal feet of new steel work. A grade separation at South street is also a part of the project. The prevailing length of the spans was 60 feet, but there was one very unusual deck girder span across the tracks



Showing Beginning of the Steelwork at North End of New Viaduct Over the Appomattox

of the Norfolk & Western Railway and Fleet street, Petersburg, this span being 131 feet out to out, each girder weighing about 116,000 pounds. The track on the new line is level, and the structure is modern in every particular.

The project was handled by E. A. Frink and J. B. McClain of the engineering department of the road. The old bridge is now being taken down. Other firms engaged on the project, or that furnished materials, included: Cement—Lehigh Portland Cement Co., Fordwick, Va.; gravel and sand—Friend & Co., Petersburg; reinforcing steel—Kalman Steel Co., Atlanta, Ga.; form lumber—American Hardware Co., Petersburg; sub-contract for grading for underpass—Gresham & Ware, Inc., Petersburg.

Full Operations for Glass Plant

Fairmont, W. Va.—With a force of 750 operatives, the big plant here of the Owen-Illinois Glass Co. is expected to be in full operation by the middle of April. During light operations this winter, four furnaces have undergone complete reconstruction. The plant is now operating three furnaces, a fourth is about to go into operation, while the fifth will start in a few days and in April all six will be at full capacity. A box factory and molds department are included in the company's employment item, the latter using a force of 130 men to make molds for the company's plants here and in Charleston and Huntington, W. Va., and at Clarion, Pa., and Bridgeton, N. J. Forty men are employed in the wooden box factory which produces 2500 boxes daily, while paper cartons used by the company are made by the Fairmont Box Co. The Fairmont plant of the Owen-Illinois Glass Co. is a unit of one of the largest bottle manufacturing enterprises in the world, the local plant using large quantities of sand from the Deckers Creek section near Morgantown and quantities of lumber from West Virginia sawmills.

\$37,500,000 for St. Louis Residential Development

St. Louis, Mo.—From a survey of large real estate developments in St. Louis and its environs, where building sites are being offered, it is estimated that nearly 5000 acres are being improved for new residences to cost more than \$37,500,000. This area is spread out from a point near the confluence of the Mississippi and Missouri rivers north of the city along the western fringe of its suburbs to their southern extremities near Jefferson Barracks.

Activity in Building and Industry at Knoxville

By HARRY M. WATSON, Knoxville, Tenn.

BUSINESS conditions in the Knoxville area have taken on an improved tone. Industrial plants at Knoxville have been gradually increasing their forces since January, thus serving materially to relieve the unemployment situation. The Sterling Wood Products Company plant, which was closed down for several weeks, is now working about 600 men. The D. & D. Manufacturing Company, a new concern making men's clothing, started operations with 150 employees. The railroad shops at Knoxville have called back a considerable number of workers.

In the construction field, the chief project under way is the \$1,000,000 Henley Street bridge across the Tennessee River. The main span is now being placed. Construction of this bridge is giving employment to several hundred men, creating business for Knoxville material and equipment houses. Booth and Flinn, Pittsburgh, are general contractors.

The new \$600,000 Church Street Methodist Church was opened two weeks ago. The University of Tennessee has just completed construction of a \$300,000 library unit, and plans are ready for a new auditorium-gymnasium building. The Dowler Amusement Company of Chattanooga has announced its intention of beginning early construction of a \$200,000 theatre on Gay Street.

At least a half dozen new retail establishments have made their appearance in the uptown area within the past few weeks. Several distributing offices have been opened. Knoxville industrial plants have been successful in getting large orders for business, a significant case being the contract secured by the Candora Marble Company to furnish marble for the new Louisiana State Capitol building at Baton Rouge, La.

The Hamilton National Bank of Knoxville, a new financial institution, is to be opened early in April. The new bank, with which T. R. Preston and C. M. Preston, Chattanooga bankers, are identified, is purchasing \$5,000,000 worth of assets from the receiver of the closed Holston-Union National Bank.

L. H. Blanton, representative of the U. S. Postoffice Department at Washing-

ton, was in Knoxville the week of March 16 making another inspection of sites proposed for a \$1,575,000 postoffice building.

The East Tennessee tobacco markets, which finished their buying season in February, were responsible for putting about \$10,000,000 cash money into the hands of farmers in this territory. Sales at the tobacco warehouses in Knoxville totaled over \$1,432,000.

Florida Forestry Conference

M. J. Roess of Jacksonville has accepted the general chairmanship of the Florida Commercial Forestry Conference, to be held in Marianna, April 17 and 18. Mr. Roess is prominent in Florida timber activities and is a leader in the establishment of fire protection for forests and in reforestation work.

The executive committee is composed of T. J. Aycock, president Aycock-Lindsey Turpentine Co., Shamrock; M. L. Fleishel, president Putnam Lumber Co., Shamrock; Dr. Burdette G. Lewis, president Foremost Dairies Inc., Jacksonville; C. H. Overman, Bagdad Land & Lumber Co., Bagdad; H. M. Wilson, vice-president Turpentine & Rosin Factors Inc., Jacksonville; William L. Wilson, president William L. Wilson Co., Panama City, and B. F. Williamson, American Tung Oil Corp., Gainesville. A general conference committee composed of more than 50 prominent landowners, turpentine and lumber operators and business men will aid.

Bids on \$1,000,000 Temple

Fort Worth, Tex. — The Masonic Temple Builders' Association here will open bids April 7 in the office of W. G. Clarkson & Co., architects of this city, for the superstructure of a \$1,000,000 temple at North and Henderson streets. The building will be 167 by 120 feet, 4 stories and basement. Excavation and foundation contract was awarded to William D. Southwell, Fort Worth.

Population Trends

in North Carolina

By

BRYAN W. SIPE,

Statistician, State Department of Conservation and Development, Raleigh.

SINCE 1870 the rate of growth of the population of North Carolina has averaged 20 per cent each decade, and in the last two decades the increase has been greater than for the United States as a whole. The greatest growth in the history of the state was experienced from 1870 to 1880, and the second greatest was during the decade just closed. From 1920 to 1930, population increase in the United States was 16.1 and in North Carolina it was 23.9 per cent.

It has been estimated that the population of the United States will become stationary at 200,000,000 before the year 2000. In North Carolina, on the other hand, it appears that it may be many years before the population will become stabilized. Only 10 counties in the state have a density of more than 100 persons per square mile of land area, many have less than 50 and a number less than 25. Yet there is scarcely a county that may not become as densely populated as any other county. Every one has temperate climate, sufficient rainfall, good soil conditions and many natural resources permitting of almost limitless development. Density of population for the state is only 65 persons per square mile, yet almost any one of the counties should be capable of supporting a population of 200 or more per square mile. The state density compares with the Middle Atlantic States, 262.6 persons per square mile; the New England States, 131.8 persons; the Lake States, 103.1 persons.

The national trend in population has been toward the cities and towns. In North Carolina, the cityward trend is

just as definite, though not so large a portion of the population may be classed as urban. At the beginning of the last decade, 19.2 per cent of the state's population was urban, while now 25.5 per cent is urban. That portion, one-fifth, of the population which resided in cities and towns at the beginning of the last decade gained 319,477 in numbers, while the four-fifths which resided in rural areas gained only 291,676.

Let us now try to discover the source of the excess in urban gain. The average birth rate for the state as a whole was 30.4 during the decade. There was little difference in the rate as between urban and rural population. Average death rate during the same period was 11.8 per 1000 of population, making a net birth rate of 18.6 and a net gain from excess of births over deaths for the state as a whole of 532,834. It appears, therefore, that net gain from immigration was the difference in the total gain in population and the total increase by birth. Thus, some 78,310 persons must have moved into North Carolina during the decade. The net gain in the rural population from births alone should have been 411,913, whereas it was only 291,676. It appears then that during the last decade 120,237 more persons

left rural areas for urban communities than moved into the rural communities. The urban communities not only absorbed the 120,237 persons who left North Carolina rural areas, but also the 78,310 persons who came into the state from outside.

Of course, some of this gain in urban population may be credited to the fact that 13 towns in North Carolina moved into the census-sized towns group. In 1920, there were 55 communities in North Carolina which had populations of 2500 or more, but in 1930 there were 68 such communities.

What have been some of the causes for this cityward migration in North Carolina? The number of wage earners employed in manufacturing plants has increased by about 50,000 during the decade. The textile and tobacco industries have absorbed a large portion of these. The growth of these industries has not been all of local origin, for this period has been characterized by the migration of the textile industry from New England to the South Atlantic States, and a large portion of these plants stopped in North Carolina. Of course, many lesser industries have expanded. Mercantile establishments have increased in size and new ones have grown up. These have absorbed other hundreds of employees. The professions and miscellaneous callings have been sought out by still others.

Even in the present stringency, new industries are springing up in the urban areas. During 1930, there were 116 new plants in the Piedmont section alone. The plants are drawing employees from the rural sections. In the course of a year or two, this cityward movement will undoubtedly be resumed at a fairly rapid rate. Agriculture must become more profitable before it can hold its population. Livestock production and dairy manufacturing, poultry raising and meat production seems the main way out. But it is evident that the cities are growing larger at the expense of the country and that this tendency is likely to continue for some time.

Population Trends

UNITED STATES

Year	Urban				Rural			
	Total Population	Per Cent of Total	Total Gain	Per Cent of Gain	Total Population	Per Cent of Total	Total Gain	Per Cent of Gain
1900	30,380,433	40.0	.....	...	45,614,142	60.0	.....	...
1910	42,166,120	45.8	11,785,687	38.8	49,806,146	54.2	4,922,004	9.2
1920	54,304,603	51.4	12,138,483	28.7	51,406,017	49.6	1,599,571	3.2
1930	68,955,521	56.2	14,650,918	26.9	53,819,525	43.8	2,413,508	4.7

NORTH CAROLINA

Year	Urban				Rural			
	Total Population	Per Cent of Total	Total Gain	Per Cent of Gain	Total Population	Per Cent of Total	Total Gain	Per Cent of Gain
1900	186,790	9.9	.....	...	1,707,020	90.1	.....	...
1910	318,474	14.4	131,684	75.5	1,887,813	85.6	180,793	10.6
1920	490,370	19.2	171,896	50.1	2,068,753	80.8	180,940	9.6
1930	809,847	25.5	319,477	63.1	2,360,429	74.5	291,676	14.1

Jones & Laughlin Distribution Base at New Orleans

AQUISITION of the Lukens Steel Company's plant at New Orleans by the Jones & Laughlin Steel Corporation, Pittsburgh, gives to the company a large, modern, steel fabricating, warehousing and distributing base at the mouth of the Mississippi River which can be served directly by river transportation from Pittsburgh, as well as by rail.

The warehouse and fabricating shop at New Orleans are on a site of approximately 17 acres, on the turning basin of the Industrial Canal, about one mile from the Mississippi River, and about six miles from the center of the city. The buildings include a four-bay warehouse, fabricating shop, and a two-story brick office building. Warehouses and shops are equipped with traveling cranes, punches, shears and other machinery, and cover an area in excess of 100,000 square feet. The plant has complete rail and water facilities, permitting the interchange of steel products between river barges and the plant, the railroads, or ocean-going vessels. Products will be distributed out of the plant locally in New Orleans and by rail and water transport to points in the South and Southwest, on the Pacific Coast, and in foreign countries.

The New Orleans plant is an addition to the Jones & Laughlin river-rail delivery and distribution system, with ware-

houses at Pittsburgh, Cincinnati and Memphis. For about ten years the company has been shipping to New Orleans and other Southern points by river, having been the first steel company to inaugurate this method of distribution in order to reach distant markets. The company has shipped hundreds of thousands of tons of its products in tows of modern steel barges of its own construction, propelled by its own towboats. In many instances Jones & Laughlin steel products are transported 1000 to 2000 miles by river, and then go on by rail another 1000 miles or more.

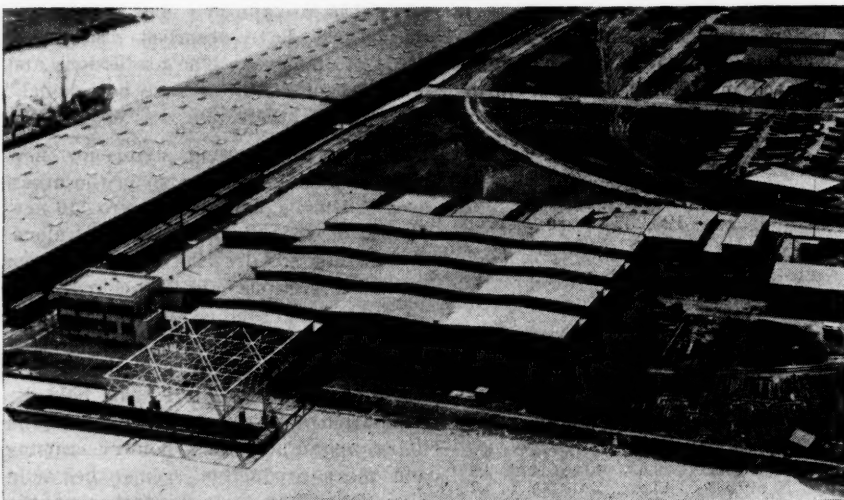
"We have shipped steel in barges to customers as far into the Northwest as Minneapolis, 2000 miles by river from Pittsburgh," an officer of the corporation said, "and as far South as Biloxi, Miss., also 2000 miles by water. Our river service regularly delivers to customers in Parkersburg, Cincinnati, Louisville, Evansville, St. Louis, Memphis, New Orleans and other cities in the Ohio and Mississippi valleys. With the completion of the Intracoastal Canal between New Orleans and Corpus Christi, Texas, we anticipate being able to serve customers in Port Arthur, Beaumont, Galveston, Houston and other Texas cities, by all-water delivery from Pittsburgh, or from our warehouses in New Orleans and Memphis."

With the delivery of two new steam towboats this spring the corporation's river fleet will consist of 12 towboats and 250 steel barges, having a total carrying capacity of 200,000 tons. Most of

this equipment is engaged in transporting to the company's steel works and by-product coke ovens in the Pittsburgh district the output of coal from its mines on the Monongahela River, which runs as high as 5,000,000 tons annually. Another division, consisting of gondola and box barges of steel construction, with water-tight compartments, is assigned to the down river delivery service between Pittsburgh and New Orleans. Still another division is engaged in operating car ferries between the company's Pittsburgh works and its Aliquippa works on the Ohio, whereby freight cars loaded with steel products in process of manufacture are transferred from one plant to the other, a distance of 20 miles.

The Lukens Steel Company has had a long business connection with New Orleans, having begun shipping iron plates to that city in 1835 from their works in eastern Pennsylvania via the Pennsylvania Canal to Pittsburgh, and thence by the Ohio and Mississippi rivers. The New Orleans plant was erected seven years ago. The manufacturing plant of the Lukens Steel Company is in Coatesville, Pa.

The two Jones & Laughlin plants, in Pittsburgh and in Aliquippa, occupy 750 acres of land, and have over seven miles of river front along the Monongahela and Ohio rivers. The corporation owns large reserves of raw materials, operates its own iron ore and coal mines, limestone quarries, railroads, lake and river steamers. Its steel ingot capacity is 3,420,000 tons, and 23,000 men are employed in manufacturing a widely diversified line of products.



Steel Warehouse and Rail-Water Terminal for Jones & Laughlin at New Orleans. Fronts on Industrial Canal.

\$4,562,000 Utilities Budget

Charlottesville, Va.—The 1931 budget of the Virginia Public Service Company authorizes the expenditure of \$4,562,000 during the year for extensions and improvements, according to F. W. King, president. New work will involve an outlay of \$2,786,000, while work carried over from 1930 will entail a cost of \$1,775,800.

\$500,000 Little Rock Store

Little Rock, Ark.—Plans are being prepared by Thompson, Sanders & Ginocchio, local architects, for a \$500,000 department store to be erected at West Seventh and Main streets for Pfeifer Bros. The new building will be 154 by 140 feet, four stories, basement and sub-basement, with walls designed to carry 4 additional stories.

Southern Pine Meeting

New Orleans, La., March 30.

The sixteenth annual convention of the Southern Pine Association at the Roosevelt Hotel here last week adopted a code of ethics to govern the distribution of lumber. The association also pledged co-operation to railroads which are now facing "intensive new competition." A 5-cent-per-thousand-foot tax on lumber shipped by members was imposed to provide funds for advertising and promoting the sale of Southern pine.

"The retail lumber dealer is recognized as the proper distributor within his trade territory" of all business done with departments of State and Federal Governments, shipyards and large dock builders, railroads and large users of industrial lumber, the code declared in pointing out that the economical distribution of the products of the lumber industry requires the services of both wholesale and retail distributors. A provision of the code reads: "A retailer has no recognized rights in the distribution of lumber outside his trade territory which, within it, he does not accord to manufacturers and wholesalers." The code of ethics was submitted to the board of directors of the association by A. J. Hager, president of the National Retail Lumber Dealers Association, Lansing, Mich.

In pledging co-operation to the railroads, appointment of a committee was provided for, to meet with a committee of railway executives and formulate a policy to be recommended to member mills for the benefit of the rail lines. The resolution also suggested regulations—as stringent as those placed on railroads—for bus, truck and inland barge lines and other new forms of transportation.

In increasing assessments on lumber shipped by member mills, the resolution adopted emphasized the need for intensive advertising and promotion work because of the big decline in the price of Southern pine in recent months.

All the officers of the Association were re-elected and three new members of the Board of Directors were selected, including: W. T. Neal, Brewton, Ala.; Fred Ingham, Kansas City, Mo., and B. E. Kenney, Caryville, Fla.

A. J. Hager, Lansing, Mich., and Jos. Scheffer of Nashville, Tenn., in outlining viewpoints of retail lumber dealers, pointed out the difficulty of competing

with mills that sell directly to the customers or through agents. Speakers for the manufacturers expressed surprise that such unethical practices were to be found on an extensive basis, and suggested that a strict adherence to grade-marking of lumber would go far toward throttling the activities of unethical non-member mills.

A "home financing plan for the lumber industry" was presented by A. A. Hood of Chicago, president of the Associated Leaders of Lumber and Fuel Dealers of America.

Construction was heralded as the key to unlock the doors to a general revival of business and industrial activity in addresses by various speakers at the convention. Numerous suggestions for accelerating business activity were made. Foremost in the discussions in this connection was the subject of finance, and severe criticism was made of the practice of limiting loans on construction to 50 per cent of cost. A plan for a "construction investment trust" was discussed, as was another plan for the organization of a controlled mortgage company. The proposals were made by representatives of various branches of the construction industry and leaders in the movement were impressed by the sympathetic attitudes for co-operation between the various factors. The need for reviving home building in volume was accepted as of paramount importance, and a large part of the discussion centered about the need for solving the problems of finance and encouraging the building of better type, low cost dwellings. Figures were presented to show that since 1928 dwelling construction throughout the country has lagged, and that one American city alone needs now 25,000 single-family houses.

As one means of achieving a construction revival through stabilizing prices for lumber so that prospective buyers may become convinced that prices are at their lowest point, C. C. Sheppard, president of the Southern Pine Association, proposed that lumber plants throughout the South immediately begin operating on an 8-hour-a-day basis. Pointing out that conditions in the industry are in a more chaotic state than at any time within the past 16 years, Mr. Sheppard declared that the remedy was in the hands of the industry itself simply by "adjusting your production to the demand."

O. W. Rosenthal, Chicago contractor,

said that funds for aiding in the revival of building activity could be made available by a "construction investment trust" that would be able to function probably in 30 days.

Problems facing small lumber mill operators in the Southern states were a chief topic of discussion at the convention. H. C. Berckes, secretary-manager of the association, pointed out that many of the large mills are rapidly depleting their stands of timber, and small mills are becoming increasingly important in the production of lumber. He reported progress in the organization of groups of subscribers at various points in the South.

L. R. Putnam, merchandising counsel for the association, discussed "What Present Day Markets Demand of the Small Mills." C. J. Telford, Forest Products Laboratory specialist, spoke on "How the Planer-Man Can Help Improve the Quality of Lumber Produced by the Saw Mills." B. H. Sonderegger, State Forester of Louisiana, discussed problems of maintaining a perpetual timber crop for the small mills. Other speakers at the convention included: Julian F. McGowin, Chapman, Ala.; O. O. Axley, Warren, Ark.; Peter De Vries, Chicago; George F. Colton, president of the Illinois Retail Lumber Dealers' Association, Rockford; W. E. Difford, Louisville, Ky.; B. E. Reid, Cleveland; Allen Loehr, secretary of Alabama Retail Lumber Dealers' Association; Claude Hortman and R. C. Allis, Port Arthur, Texas; C. M. Managan, Lake Charles; W. T. Murray, Chicago; E. L. Kurth, Keltys, Texas; Edward Hall, Houston, Texas; John Kirby, Houston; H. E. T. Moore, traffic manager, and J. F. Carter, trade extension manager of the association.

Georgia Cotton Convention

Announcement that the convention of the Georgia Cotton Manufacturers Association at Atlanta, April 7 and 8, will be strictly a business meeting is made by T. M. Forbes, secretary, from headquarters in the Atlanta Trust Building. "Several vitally important problems with which the mills now are confronted" will be discussed, and an informal luncheon will be the only social feature.

Nearly 200 Georgia cotton mill executives are expected to participate, and several prominent speakers will address the gathering. The Cotton Manufacturers Association of Georgia was organized in 1900.

Fruit and Vegetable

Canning in Georgia

By

H. P. STUCKEY

Director, Georgia Experiment Station,
Experiment, Ga.

GEORGIA grows large quantities of fruits and vegetables, and yet the state has not developed a large canning industry, because the early market has offered prices which canners cannot meet in competition with canners in other sections. But there are indications that the Southern grower is awakening to possibilities of growing some crops on a larger scale, and selling to local canneries under contract at a lower price than the early Eastern market will pay. As an instance, overproduction of stringless beans has caused growers to see the wisdom of contracting with local canners for their entire output, so that it is now possible for Southern canneries to contract for quite large acreages at competitive canners' prices.

Georgia is nationally known for some of its canned goods. Pimientos head the list, and it is conceded by the trade generally that no finer pimientos are grown and canned anywhere in the world than are being packed in this state. Other canned goods in the order of their importance are shrimp, oysters, stringless beans, lima beans, turnip greens, okra, and peaches.

Center of Pimiento Industry

While Pimiento peppers themselves are not a large item in the category of food products, Georgia stands in the first rank nationally and internationally as a source of quality pimientos. Hardly a dinner is served without a small portion of pimiento, offered in a salad or a dressing, in cheese, or in prepared meats and condiments.

The pimiento canning industry is located around Griffin in middle Georgia. Its beginnings some 20 years ago centered about the Georgia Experiment Station on the outskirts of Griffin, and it is natural that the industry should have developed nearby, with the station to foster the commercial growing of the crop. The Pomona Products Company, Griffin, is the founder of the pimiento industry.

Back in those early days, it was ex-

tremely difficult to interest cotton growers in the crop. The boll weevil, however, brought on the idea of diversification and cotton growers began to look about for other crops. Growers who made the attempt soon found that they could make money at \$40 a ton for pimientos with the result that the canning industry shortly had an abundant acreage at its command and could afford investments in factories and in special machinery for canning. The usual seven lean years during which the industry went through its initial trials came to an end and Georgia had a new industry on a firm foundation.

Pimientos are not marketed in the fresh state. This enables the canning industry to secure the required tonnage under contract, unlike other vegetables which are influenced by high prices for fresh products. A successful cannery must have a reliable source of supply of raw products.

Asparagus and Pear

Possibilities

While Georgia may never be considered a great factor in canning circles for the major items of canned vegetables—corn, peas and tomatoes—there are

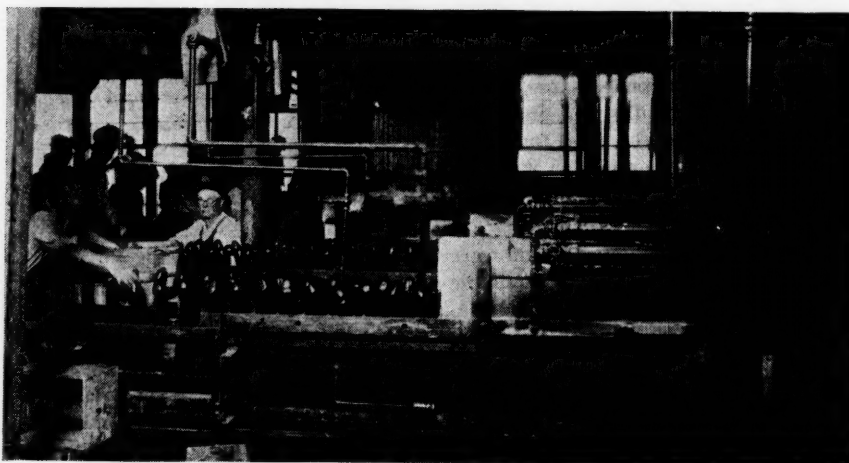
some specialties which present possibilities for success. Asparagus grows well in this climate and growers are anxious to find a canner's market. Large acreage can be made available with ample tonnage at competitive canners' prices.

Pineapple pears are a real canning possibility. This is a canning pear with a distinct and appealing flavor. Shipments of canned pears of this variety have been made to England and to Eastern markets and have met with favor. Large orchards of pineapple pears have been planted in the southern part of the state. To date there has been no concentrated effort to commercialize this pear in a large way, although the Georgia Experiment Station has recommended the pear and also asparagus for canning. Interests are being attracted, and in due time these products will be put on the market in a large way.

Possibility of Canning Peaches

The varieties of peaches grown in Georgia are practically all freestone types, and only suitable for the fresh market. The Georgia Experiment Station, however, secured some trees of California canning varieties. About two years ago they came into bearing. The crop was canned at a local plant and the product showed up fully as well as that packed in California. It is entirely possible that commercial orchards will be put out in Georgia for the exclusive use of canners, for present indications are that California varieties for canning purposes can be successfully grown and canned in Georgia.

The present canning of Georgia peaches is limited almost exclusively to pie peaches. Some work has been carried on in an effort to develop a good dessert product from Georgia peaches, with a measure of success. If gathered too early the product lacks flavor. If gathered at an advanced stage of ripeness it lacks the desired firmness. Care-



Interior of Pimiento Cannery Showing Roasters for Removing Pepper Skins

ful handling also is required to maintain the color. Recent work reported in Technical Bulletin 196 of the United States Department of Agriculture is to the effect that the J. H. Hale peach is decidedly superior to other Southern varieties for canning, with the Elberta second.

Georgia peaches are recognized as having a better flavor than the California peach used for canning and if flavor were accepted as a standard Georgia canned peaches would not suffer by comparison.

Turnip Green Canning

Turnip greens have always been considered a great delicacy in the South, and are preferable to spinach. The higher iron content has lead health specialists to state that turnip greens have more to do with the maintenance of good health than any other vegetable. A few years ago canners began to pack these greens and the canned product has been found fully as good as the fresh vegetable. To date the North and East have steadily refused to consider turnip greens a delicacy even though their Southern neighbors insist that spinach is much inferior to turnip greens.

Record Sulphur Production— South Supplies Entire Domestic Output

With a production of 2,558,981 long tons, sulphur output in the United States reached new high levels in 1930, according to the Department of Commerce. This is an increase of 8 per cent over 1929, the former record year. Shipments in 1930 were 1,989,917 tons, valued at \$35,800,000, declines of 18 per cent in both quantity and value from 1929.

Production in Texas was continued at all properties that were active in 1929, and a new property at Long Point was put into operation. Properties contributing to the 1930 output were the Texas Gulf Sulphur Co., at Gulf and Newgulf; Bryan and Hoskins mounds of the Freeport Sulphur Co., Freeport, and Palangana dome of the Duval Texas Sulphur Co., Benavides.

The South is now supplying the entire domestic output of sulphur. The average quoted price was reported by trade journals as unchanged at \$18 a ton f. o. b. mines throughout the year. Open prices were \$1 to \$3 a ton higher, and prices for export at \$22 a ton f. a. s. Atlantic ports. Imports of "sulphur and sulphur ore" ran to 29 long tons in 1930, and in other forms to 126 tons.

\$7,500,000 Office Building for House of Representatives

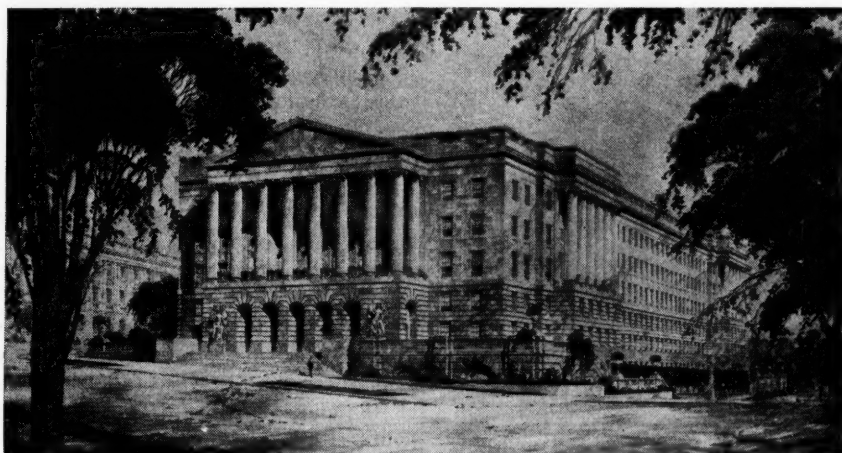
Construction is in progress on the new House of Representatives Office Building in Washington, to cost approximately \$7,500,000. The building will occupy two blocks directly west of the present House Office Building, bounded by New Jersey and Delaware avenues and B and C streets. It will be of steel frame construction, supported by a reinforced concrete foundation, with combination tile and concrete floor slabs and main roof slab of poured gypsum.

Exterior walls will be faced with granite to the first floor level and above this with white marble, backed with brick. Walls of the interior court will be faced with oolitic limestone, while walks, balustrades and seats in the court will be of sandstone and interior partitions of hollow tile. Main roof will be covered with ribbed sheet copper, and flat roof surfaces for the most part with five-ply asphalt topped with concrete. Ornamental metal work will be of bronze, aluminum, cast iron and wrought iron, interior stair railings and railings for main porticoes and metal work for the porte-cochere to be of aluminum. Bronze elevator doors and frames will be used on the first floor and hollow metal doors on the other floors.

Smooth finish gypsum plaster will be used and some of the rooms will have ornamental plaster ceilings. All roofs will be insulated against heat and cold. Corridors on the first floor will be laid in a dark green marble with a base

of gray marble, while other corridor floors will be in terrazzo. Office floors will be covered with rubber tile; assembly room floors will be partly of cork tile and partly carpeted, and committee room floors will be of oak laid in mastic. Woodwork in the offices will be of walnut and in the corridors and committee rooms of white pine.

The building will be heated by a vapor system, for which steam will be supplied by the Capitol power plant, and one freight and seven passenger elevators will be installed, also four mail chutes and four package conveyors. A two-room suite for each of the 435 members of the House will be provided. Plans for the structure were prepared by the Allied Architects of Washington, Inc., and general contract awarded to the Consolidated Engineering Company, Inc., Baltimore, at \$5,270,000. G. A. Weschler, Washington, is mechanical engineer. Contract for exterior marble, involving a cost of more than \$800,000, was awarded to the Georgia Marble Company, Tate, Ga.; contract for reinforcing steel and specialties was awarded to the Truscon Steel Company, Youngstown, Ohio, for structural steel to the American Bridge Company, New York, and for interior marble and tile to the Hiltgartner Marble Company, Baltimore. A number of other important sub-contracts have been awarded, as previously noted in these columns. The building is being erected under supervision of David Lynn, Architect of the Capitol.



New House Office Building Under Construction in Washington

\$1,500,000 Building Completed

The International Shoe Co., St. Louis, Mo., has completed a \$1,500,000 distributing building erected expressly for housing the shipping facilities of the several branches of the company; offices are located in a 10-story building across the street from the new structure. The present building and the new one are connected at each floor except the first by an enclosed bridge. The new structure is 310 by 200 feet, of reinforced concrete, flat slab design, with floors of monolithic finish, the topping consisting of cement, traprock and hardener. Stair towers and toilet rooms are faced inside with enameled brick, the rest of the interior faced with smooth, buff fire-clay tile. The entire exterior is faced with light gray impervious face brick, topped with polychrome terra cotta. The building was designed and erected under supervision of the machinery and power department of the International Shoe Co., of which Fred Hume is manager, Herbert Reinhardt is architect and M. C. Emanuel is structural engineer. The James Black Masonry & Contracting Co., St. Louis, was general contractor. The following sub-contracts were awarded, all contractors of St. Louis, except as otherwise specified:

Excavating—The Excavating Co.
Sand, gravel and cement—Hunkins-Willis Lime & Cement Co.
Reinforcing bars—Missouri Rolling Mill Corp.
Reinforcing specialties—St. Louis Material & Supply Co.
Traprock for floor finish—Pilot Knob Ore Co.
Iron floor hardener—Master Builders' Co.
Floor finishing—H. A. Dalley Contracting Co.
Face brick—Alton Brick Co.
Enameled brick—Hydraulic Press Brick Co.
Inside tile facing—Ayer-McCarel-Regan Clay Co., Brazil, Ind.
Structural steel—Atlas Iron Works
Steel sash—Detroit Steel Products Co., Sears & Plou, St. Louis, representatives
Rolling steel doors—Kinnear Manufacturing Co., Columbus, Ohio, Seidel Manufacturing Co., St. Louis, representative
Steel column forms and sheet metal work—Hopmann Cornice Co.
Passage elevator doors and fire escape doors—Niedringhaus, Inc.



New Structure in St. Louis, for International Shoe Co.

Freight elevator doors—St. Louis Fire Door Co.
Millwork—Reinhardt Co.
Barrett roof—Swift Roofing Co.
Roof insulation—Celotex Company
Sprinkler system—Grinnell Company, Inc.
Sprinkler tanks—Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.
Plumbing—J. Sheehan Plumbing Co.
Heating—Midwest Piping & Supply Co., Inc.
Electrical work—Burton Electric Co.
Elevators—Otis Elevator Co.
Conveyors and chutes—Mathews Conveyor Co.
Terra cotta—Winkle Terra Cotta Co.
Builders hardware—Geller, Ward Hasner Hardware Co.
Toilet partitions—Sanymetal Products Co.
Glazing—Hadley Dean Glass Co.
Brick scaffolds—Universal Form Clamp Co., Chicago, and Patent Scaffolding Co., St. Louis
Cleaning brickwork—J. W. Bradshaw
Contractors equipment—George F. Smith Co. and Lincoln Equipment & Materials Co., Inc.
Rough hardware—Melcher-Schene Hardware Co.
Cement and steel tests—Robert W. Hunt & Co.

International Cotton Figures

Manchester, England.—Statistics relating to world consumption of cotton as issued by the International Master Spinners' Federation, Manchester, show a heavy decrease in the use of American cotton, which for the half-year ended January 31 amounted to 5,278,000 bales, as compared with 7,083,000 bales in the corresponding period of 1930. Consumption of East Indian cotton was 3,013,000 bales, Egyptian cotton 394,000 bales, and sundry cottons 2,479,000 bales, giving a world total for the six months of 11,164,000 bales, a decrease of 2,038,000 bales as compared with the six months ended January, 1930. Great Britain used only 493,000 bales, as against 880,000 bales in the corresponding period.

Total world mill stocks of American cotton on January 31 were 2,427,000 bales, as against 2,742,000 bales a year ago. Stocks of East Indian were 1,212,000 bales, against 1,173,000 bales. Stocks of Egyptian cotton were 202,000 bales, against 224,000 bales, and stocks of sundry cottons were 693,000 bales, giving a total world stock of all kinds of cotton of 4,586,000 bales, as against 4,931,000 bales in January last year.

Estimated total of the world's cotton spinning spindles shows 163,571,000 as against 165,143,000 a year ago. A feature of the returns is the large increase in Egyptian cotton spindles in India, which have increased from 93,000 six months ago to 348,000.

During the six months ended January 31 the English cotton industry was stopped for a period equal to 13.22 weeks of 48 hours, Japan 7.70 weeks of 120 hours, Italy 7.63 weeks, Belgium 3.85 weeks, France 3.01 weeks and Germany 2.87 weeks.

\$15,000,000 HOUSTON**EXPENDITURES****Survey Indicates Big Expansion Program in 1931**

Houston, Tex.—Big expansion programs to include city, county and private enterprise, are projected in Houston for the current year, according to a survey of the Chamber of Commerce, which indicates expenditures to carry out the projects will involve an outlay of more than \$15,000,000. A total of 70 new manufacturing plants located in Houston in 1930, in addition to 180 sales-distribution offices, and it is thought this year will see even a greater industrial expansion.

The Humble Oil & Refining Co. plans to erect a wholesale distributing station to consist of a 2-story combination warehouse and office building with garage, storage tanks and other facilities, and the Texas Packing Co. has announced a \$50,000 expansion. Green & Green, manufacturers of fruit flavors, plan a \$35,000 addition to their plant; the Texas Building Co., subsidiary of Jesse H. Jones & Co., plans a 10-story office building; preliminary work has started on a \$250,000 building for the Sisters of the Incarnate Word; construction is expected to get under way in June on the proposed \$1,400,000 city-county hospital; work will probably be started this year on a \$615,000 addition to the postoffice, and preparatory work is under way on the \$7,000,000 Southern Pacific passenger station, while there remains about \$500,000 worth of work to be done by the city in connection with the project.

The city will expend \$1,000,000 for street paving and about as much for sewers, in addition to expenditures for the fire department. Harris County is pushing a comprehensive road building program, calling for the completion of a road from Morgan's Point to Goose Creek and Pelly to cost \$270,000; paving Crosby-Lynchburg road, \$210,000; widening La Porte road from Simms Bayou to Deer Park, \$350,000; complete South Houston-La Porte road, \$375,000; complete Lowell Street paving, \$80,000; complete Westheimer road paving, \$60,000; complete Chocolate Bayou road, \$80,000; pave section of East Texas avenue, \$150,000, and build bridges over Bray's Bayou, Goose Creek and Buffalo Bayou, \$75,000.

State highways to be built in the county include work on the Humble road, \$800,000; Alameda road, \$175,000; highway No. 3 around Houston, \$600,000, and the Eureka underpass to cost \$150,000. It is estimated that other work on county roads, including bridges, will cost \$450,000.

LETTERS FROM OUR READERS

Car Loading Companies and Railroads

Railway Business Association
Philadelphia, Pa.

Editor Manufacturers Record:

Appreciation of courtesy and group interest alike move me to write, as invited by the MANUFACTURERS RECORD, a comment on the relations between freight forwarding companies and railroads.

A RECORD subscriber was so good as to express interest in an address of mine, "The Rail and the Road," published by the MANUFACTURERS RECORD, and to define "the main item in railroad operation" as "net operating revenues." Anything, he remarked in his letter published in the February 26 MANUFACTURERS RECORD, "that would increase the net operating revenues would be a benefit to the railroad company." With this premise, the correspondent cited as an opportunity for increase in revenue the re-capture of freight business by railroads from forwarders, concluding that "if the railroads would clean up from within the public would be more inclined to listen to their present story;" and he said he would be glad to have my opinion on car-loading companies.

I haven't any opinion. All my working hours are devoted to the study of railway problems as these affect manufacturers of railway equipment, material and supplies and engineers in railway construction, an occupation which has engaged me for going on 23 years. The only information about car-loading forwarders that sprang from memory to my mind upon reading the invitation for an opinion was that from time to time I had read in the daily, railway and traffic press that such forwarding was done and that certain railway systems were said to own (and I believe said also not to own) some of these agencies. But we aim to please, so I addressed inquiries on the subject to an officer of the American Railway Association and to an Interstate Commerce Commissioner.

The A. R. A. man replied: "I am not sufficiently familiar with the methods of these concerns to discuss them with any degree of accuracy. The amount of tonnage handled in this manner is, of course, not sufficient to be of any importance so far as railroad finances are concerned."

The Interstate Commerce Commissioner answered:

"In reply to your letter of February 9, will say that it seems to me there are two answers which might be made to the inquiry as to why railroads do not find a way of getting the earnings now realized by the forwarders:

"The first one is that some of the rail-

roads, and I think this applies particularly to the New York Central and to the Pennsylvania, are through subsidiaries endeavoring to get control of this business.

"The second answer, which may be somewhat surprising, is that in response to inquiries by our investigators we are told that these subsidiary forwarding companies are operating at a loss.

"On page 97 of our forty-fourth annual report for the year ended December 1, 1930, we made the following recommendation:

"That the act be amended so as to require that the rates and practices of forwarding companies engaged in interstate commerce shall be reasonable and non-prejudicial; to require such companies to file with us and strictly observe their published schedules of rates and charges; and to provide penalties for departures therefrom or for the granting of concessions or rebates by means of any device whatsoever to any shipper, and make the administrative provisions of the act applicable for the enforcement of the duties so imposed."

"I see no reason why the business now handled by the forwarding companies should not be handled by the railroads. In any event, it should be put on a stable basis and required to operate on reasonable and non-prejudicial published rates."

In both of these authentic findings I concur, first because I have great faith in the sources and second because what they say releases me for pursuance of my regular duties.

Possibly no obstacle retards more the solution of the railway problem than the expenditure of thought and energy upon details which seem paramount to individuals and groups and from their standpoint must be attended to, and attended to in their way, before they will participate in any general survey of the whole problem, not to say any effort to solve it. My good friend regards net railway operating income as "the main item in railroad operation." Agreed. But he goes on: "Anything that would increase net operating revenues would be a benefit to the railroad company." Agreed with a tremendous qualification. No one thing will increase net income unless many other things conspire to the same end. There would be no increase in net if a railroad recaptured \$100,000 a year by changes in car-forwarding arrangements and lost \$1,000,000 a year by neglecting something else which it would have been attending to if it had not been diverted from it by the paramount car-loading forwarder issue. That would be true if we could assume that the \$100,000 would actually be gained. But we can't even assume that the opportunity proposed is actual, and the railroads censurable for neglect. From what I know about their minute scrutiny of every conceivable chance to earn or save a dollar I would strongly suspect that any apparent opening of this sort would be pounced upon if actual. My suspicion is not a judgment. The RECORD's subscriber may be right. If he is, the rela-

tive insignificance of the amount involved is no excuse for neglecting it. Pennies make dimes. There should and must be and I believe there is time for the little things and the big things too in the railways' quest of net income. The point I am trying to stress is that somebody in America has to stand back a bit, get the whole picture and concentrate his attention, with the attention of as many others as he can mobilize, upon the big things.

The Interstate Commerce Commission many years ago accompanied a finding in a rate advance case with a long list of suggestions for increase of net income otherwise than through rate increases. It happened to come under my observation that the railways as a whole gave the most careful study to every one of these and that the individual railways scrupulously placed themselves in such position that never again would delinquency on any of these counts be held against them as a bar to rate adjustments. It would be impossible to say, considering these recommendations separately, how much if any increase in net earnings resulted. What we do know is that the larger problem of railway income was not solved, and it seems worth considering whether confidence in all those recommendations and, in later periods, reliance on other procedure than dealing directly with rates was not the factor which prevented a real and permanent solution. Many hoped that the Transportation Act had decreed concentration upon rate adjustments as a means of maintaining income at an adequate level. Alas, we have it all to do over again.

FRANK W. NOXON, Secretary.

Promote Consumption

New Orleans, La.

Editor Manufacturers Record:

Just a thought in regard to Federal Farm Board opportunities:

With hundreds of millions of people in the world underfed and underclothed, there is not too much cotton and wheat in the world. Consumption is too limited.

Had \$500,000,000 been wisely invested, under adequate direction, in helping consumers develop a greater buying power throughout the world, would the producers of cotton and wheat be better off than they now are as a result of the Farm Board's investment of \$500,000,000 in trying to hold prices high?—thereby making American cotton in particular unpopular in world markets, resulting in extensive substitution by consumers of growths other than American for American cotton.

We ought to be spending time and money in increasing our market outlets. Instead, the effect of the Farm Board's endeavor has been to narrow the market outlets, and to close many of them.

WALTER PARKER.

IRON, STEEL AND METAL MARKET

Lessened Demand for Steel

Pittsburgh, March 30—[Special.]—Possibly the increase in steel demand that has occurred over the last three months has come to an end. It is clear at least that there has been no more than slight increase in the total in the last couple of weeks. The increase was such as to raise steel production at least 50 per cent from the average rate in December, which was low for several years.

At the end of March steel stands at the parting of the ways, for precedent would indicate a downturn to July, ordinarily the low month of the year, while various considerations, based on prospects for consumption in a number of activities, would point to further increase. As to steel's following precedent and henceforth having seasonal decrease, it may be argued on the one hand that with buyers so conservative and postponing purchases as long as possible, peak production should come later than the usual March, but on the other hand it might be argued that when the 50 per cent rise was so much more than usual there is so much more room for a decrease. In ordinary times, when general business was not engaged in getting better or worse, steel production has run 10 to 25 per cent higher in March than in December.

As to steel consuming lines, it is easy to count up a number of increases, but few decreases. There may be relatively little building activity this year but, for whatever there is, the season has not yet opened as to buying of nails, sheets and pipe. Automobile production is expected to increase further, reaching peak in June rather than in April as in ordinary years of the past. Then there is line pipe, production of which has been light so far, while producers have had fair bookings in the last couple of weeks and many projects are on foot. Rail production will hardly have seasonal decrease earlier than June, perhaps not even then. Production of farm implements, including tractors, has been decreasing, but this does not take any considerable percentage of the steel made.

Fabricated structural steel work is to the front. While contract lettings as summarized weekly generally run 30,000 to 40,000 tons, in the last fortnight 125,000 tons has been let to the Steel Corporation for "Radio City," a group of buildings in New York to be erected during the next three years, making a record large contract in fabricated struc-

tural steel, while a week ago the Pennsylvania Railroad closed bids on 125,000 tons for electrification, for delivery over the next two years. Otherwise lettings have run a trifle lighter in the last three weeks than earlier in the year. Generally speaking, fabricated structural steel work has been absorbing more than its usual proportion of such steel as is made, while the automobile industry is well under its percentage of either 1929 or 1928, i. e., automobile production has decreased more than steel production since 1929 while fabricated structural steel has decreased less.

The Texas Company has ordered 50 miles of 12-inch electric weld pipe from the A. O. Smith Corporation, Milwaukee, for an oil line from East Texas to the Gulf. The Southern Fuel Company has ordered somewhat over 200 miles of 26-inch electric weld pipe for a natural gas line from Kettleman Hills to Los Angeles, from Smith and from the Pacific Pipe Company, Inc., San Francisco.

Finished steel prices present rather a mixed picture, with advances being made in some directions, a recent attempt failing, and a decline in another direction. The \$2 a ton advance in wire products recently announced is expected to hold, while bars, shapes and plates are expected to go up a dollar a ton as of April 1, following a similar advance January 1, but with buyers pretty well covered. The strip advance has failed as to second quarter contracts but the prompt market may advance. Automobile sheets are definitely down \$2 a ton to 3.20c while black sheets are at a range of 2.25c to 2.35c against 2.35c flat hitherto.

Demand for Pig Iron Continues Healthy

Birmingham, Ala., March 30—[Special.]—The second quarter of the year will bring about no change in the methods in pig iron selling, buying, or production, save perhaps in a little greater melt. Consumers have shown little inclination to return to the old method of quarterly contracting, seeing advantages in frequent purchasing in small tonnages. This does not give producers much opportunity of estimating future prospects. However, with a steady reduction of the surplus tonnage on yards at furnace plants the situation will be kept well in hand.

More pig iron was manufactured in Alabama in March than the previous

month, of course the previous month being a shorter month being taken into consideration. One blast furnace was brought back into commission this month. Completion of relining and remodeling of the third furnace at Woodward of the Woodward Iron Co. prepares the way for further output in that section. Tennessee Coal, Iron & Railroad Company and Gulf States Steel Company have been in the open market recently with foundry iron.

Consumers of iron while not indicating probabilities of buying in larger quantities continue to let out the information that there will be just as healthy requirements in April, and prompt delivery as in the past will be appreciated. The cast iron pipe industry is going into spring with a fairly healthy book and production will have to be kept steady, 60 to 70 per cent capacity, for some time to come. Base price of pipe was reduced not long since, to \$35 to \$36 on six inch and over sizes. An authoritative statement from the pipe industry states that shipments on orders are heavier and that municipalities are still buying for construction that is being pushed to relieve unemployment. Present inquiry for pipe is mostly for the larger sizes. It is also learned that bids have been given on several specifications lately and that before the middle of April announcements of lettings for a considerable tonnage will be heard. Other melters are also giving out favorable reports as to prospects and there is buying in small lots, stove foundries and such.

Base price of pig iron in the home territory is given at \$12 to \$13, No. 2 foundry, and \$11 on iron for shipment elsewhere. There is still a little tonnage due melters in other districts.

The steel mart holds its position of showing gradual improvement. Small shapes are coming into more activity. Plate, sheet and structural steel prices have been advanced but so far the market has not been affected. Truscon Steel Co. announces that with Birmingham steel the manufacture of contraction joints for road building will be started at once at the plant of the Kilby Car & Foundry Co., Anniston, Ala. Demand for these joints has taken on large proportions, concrete road building requiring two and a half tons of steel to every 1000 feet of road.

Steel in various shapes will be used extensively during the next several months on building and other development projects in Louisiana, Mississippi and Alabama. A match factory is to be erected at Natchez, Miss. The great

building program in New Orleans, including a new mercantile structure, besides a hospital at the State college there and other buildings, not to overlook the wharf, bridge, street and road development, terminals and what-not, will call for immense amounts of cement, steel and other products of the district. Mississippi is developing its institution for insane at Jackson, contractors in Birmingham as well as producers of material of all kinds seeking business there, 11 contracts to be let at once and later on several others. Cement producers are waiting for instructions on shipments which will aggregate handsomely a little later in the year.

PIG IRON

No. 2 foundry, 1.75 to 2.25 per cent silicon, \$12.00 to \$13.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$12.50 to \$13.50; iron of 2.75 to 3.25 per cent silicon, \$13.00 to \$14.00; iron of 3.25 to 3.75 per cent silicon, \$14.50 to \$15.00.

OLD MATERIAL

Steel rails	\$10.00 to \$11.50
Steel axles	15.00 to 16.00
Iron axles	15.00 to 15.50
Heavy melting steel.....	9.50 to 11.00
No. 1 cast.....	10.00 to 10.50
Stove plate	8.50 to 9.00
No. 1 railroad wrought.....	9.50 to 10.00
Car wheels	10.00 to 10.50
Tramcar wheels	10.50 to 11.00
Machine shop turnings.....	7.50 to 8.50
Cast-iron borings	7.50 to 8.00
Cast-iron borings (chem.).....	12.50 to 13.00
Rails for re-rolling.....	11.25 to 11.75

Metals Remain Quiet

New York, March 30—[Special.]—The non-ferrous metals have been rather quiet and weak in tone, though prices have not yielded much. More activity developed in sales of copper for export at the middle of the week when Copper Exporters, Inc., reduced the quotation from 10.55c to 10.30c. Thus nearly 4000 tons sold abroad on Tuesday and 3000 tons on Wednesday.

Lead consumers have been kept puzzled by the erratic fluctuations of lead on the London Metal Exchange. On Tuesday lead there came down one pound sterling per ton and recovered that amount the next day, then declined sharply the next. This is the most extreme fluctuation for lead so far this year. The international lead cartel has been meeting at London to plan further curtailment of production and prices have ebbed and flowed as sentiment concerning the outcome of the cartel improved or became depressed.

Tin has sold under 27 cents per pound for the first time in two or three weeks. Zinc prices declined \$1 per ton in the face of extremely poor demand.

The slower improvement in the steel industry had some depressing influence on the metals. The constant gain in steel operations since the first of the year has come to a halt and though this may be temporary, the halt was a sobering

influence. Tin plate production has increased to 77 per cent of capacity as against 75 per cent, which means a slightly better outlook for tin consumption. However in some other recent years tin plate operations have been 90 per cent or better at this season.

Silver has been fluctuating very erratically at between 29 and 30 cents per ounce. Various mining and trade associations are trying to stimulate the industrial use of silver in order to utilize the surpluses. A metal trade journal has called attention to the fact that silver bells have the sweetest tone and suggests a campaign of promotion leading to the use of such bells more generally in churches, schools, etc. The price of antimony has slipped back close to 7c per pound, duty paid, after selling as high as 7½c.

On Tuesday, Copper Exporters again used two prices in one day for export, stipulating that after the first 2500 tons should be sold the price should be lifted from 10.30c to 10.55c. Consumption of copper is improving, though very slowly. Some brass manufacturers are now working at full capacity, though the general rate of copper, brass and wire manufacture is still below normal for this time of year. The consumption of copper by the electrical manufacturers is disappointing.

One trouble with the non-ferrous metals is their indestructibility. Copper for instance is called the "everlasting metal." Virgin metal crops up in later years in the form of scrap and is remelted whereas much iron and steel is lost forever because of rust and deterioration. The only use of copper which is not perpetual is in the form of copper sulphate, large quantities of which are used in Italy for the spraying of vineyards. In the case of tin, the lowly tin can is sometimes detained, when prices of pig tin are high enough to make the operations profitable.

Overproduction is still the bugaboo of the metals industries generally, but the producers are between the proverbial devil and the deep blue sea. They wish to keep labor employed and for that reason are slow to shut down mines and smelters. This desire to keep labor employed has been one of the obstacles encountered at the meeting of the lead cartel at London where it has been proposed to cut production 15 to 20 per cent.

The price of zinc declined quietly at the middle of the week to 3.95c per pound, which is the low point of recent years, reached two or three times before within the past nine months. Some producers became anxious for business and secretly made price concessions for prompt delivery. When these secret transactions became known the market became wide open at the low figure. De-

mand for zinc has been exceedingly quiet.

Tin, which is usually the most erratic metal of all, has been the most stable in recent months, changing but little from the 27-cent level. When the price dips below that figure consumers buy in moderate fashion and when the price goes higher they leave the market strictly alone.

The Tariff Commission has been making a study of costs of copper production here and abroad and will make a report to the Senate on their findings. The information may be used in possible legislation providing for a duty on copper. The depression in the copper industry was emphasized by the action of Anaconda in cutting its dividend to the basis of \$1.50 per share annually, as against \$2.50.

Birmingham Firms Book Orders for Variety of Products

Birmingham, Ala.—Manufacturers and fabricators of steel and iron and producers of cement, limestone and other products in Alabama and the Birmingham district are booking new orders consistently and adding appreciably to unfilled tonnage. Philadelphia interests are reported to have placed an order for 7000 tons of Alabama pig iron and shipments are expected to start at once. The Ingalls Iron Works Co., recently shipped two barges of plate steel down the Warrior River bound for New Orleans for use in building 10 barges now under way for the Inland Waterways Corporation. A large increase in the force of the Rockwood Alabama Stone Co., Russellville, Ala., will be necessary, it is said, to enable the company to carry out its contracts for stone, including a large order for the new building in New York of the Metropolitan Life Insurance Co., and a large order for the Louisiana state capitol. The Republic Steel Corporation has blown in No. 1 blast furnace at Thomas, after repairs and relining, and it is understood that cast iron pressure pipe manufacturers recently received several new orders, a report being current that the Commonwealth & Southern Corporation had placed orders for 8000 tons of pipe in the district for delivery in the next three or four months. The United States Pipe & Foundry Co. will fill an order for 2500 tons of 42-inch pipe for Seattle, Wash., and 2264 tons for Long Beach, Cal. Alabama Portland cement producers have booked large orders from the state of Louisiana, which is engaged in a big development program, including the construction of roads, and bridges, flood protection facilities, airport, docks, terminals, etc.

HIGHWAYS AND MOTOR TRANSPORT

\$9,500,000 FOR FOREST ROADS

United States Forestry Service Announces Allocations

Washington, D. C.—The Forestry Service, United States Department of Agriculture, announces allocations of \$9,500,000 in forest highway funds to be expended in 33 states and territories in the fiscal year of 1932. This amount is similar to that available for the current fiscal year which is expected to set a new record in forest road construction. The 1931 program is being speeded to aid relief of unemployment, as well as to open national forest areas and facilitate the protection of forests and watersheds.

Louisiana and Wisconsin, it is said, will share for the first time in forest highway apportionment. Funds are used in states having national forest lands and are apportioned on the basis of acreage and value of these forests. The construction and maintenance of forest roads are handled by the Bureau of Public Roads. The roads generally link up with state highway systems. For the current year, the road building program for national forests was more than doubled, Congress having added \$5,000,000 to the amount appropriated annually in recent years. In the fiscal year ending June 30, 1931, the Forest Service is also expending \$3,000,000 on forest development roads and trails in the national forests. This is to be an annual expenditure on the long-time program of development and forest service.

The apportionment to Southern states of forest highway funds for the fiscal year 1932 is as follows: Alabama, \$7990; Arkansas, \$92,244; Florida, \$32,769; Georgia, \$19,385; Louisiana, \$764; North Carolina, \$28,060; Oklahoma, \$3628; South Carolina, \$3376; Tennessee, \$25,724; Virginia, \$32,371, and West Virginia, \$15,739.

10,189,000 Gallons of Road Materials

Richmond, Va.—The State Highway Department announces the following low bidders to supply 10,189,000 gallons of bituminous materials for use on Virginia highways in the six-month period, April to October: The Texas Co., New York, at \$370,611, for 6,955,000 gallons; Atlantic Refining Co., Philadelphia, at \$109,151, for 1,974,000 gallons, and the Mexican Petroleum Corp., New York, at

\$64,164, for 1,260,000 gallons. Sam E. Finley, Atlanta, Ga., was low bidder at \$23,161, to apply 3,187,500 gallons, and the Lansdell Co., Hackensack, N. J., at \$15,393, to apply 1,446,000 gallons.

FOREIGN ROAD ACTIVITY

Argentina Plans 800 Miles of Highways

Washington, D. C.—According to a bulletin of the American Road Builders' Association, Manufacturers' Division, Felix Canales Salazar, a civil engineer of Tegucigalpa, Honduras, wants information on all types of highway machinery operated by petroleum or steam and adaptable to tropical and mountainous countries, while Ing. Juan Carlos Bustos of Roads and Bridges, La Plata, Argentina, wants catalogs and descriptive literature on all types of machines and materials for building and maintaining highways. Pittendrigh Wilson & Co., Tai Ping Building, P. O. Box 2, Hong Kong, China, wants information, including C. I. F. or F. O. B. prices, on road building machinery for use in China.

By a Presidential decree of December 24, 1930, the Government of Argentina has invited proposals from private companies to build approximately 800 miles of hard surfaced toll roads. Bids are to be presented to the Ministry of Public Works within 4 months from the date of the decree, copies of which are available in the Foreign Construction Division of the Bureau of Foreign and Domestic Commerce, Washington. The proposed project calls for toll roads 6 meters wide on a 12-meter right-of-way, one road to

extend from Buenos Aires to Rosario and Cordoba, and the other from Buenos Aires to Bahia Blanca. While the route may be selected by the Concessionaire, it must parallel some existing road, and the company obtaining the concession will be required to make an annual statement to the Government, the latter agreeing to grant a subsidy to make up shortages.

\$2,000,000 Road Bonds

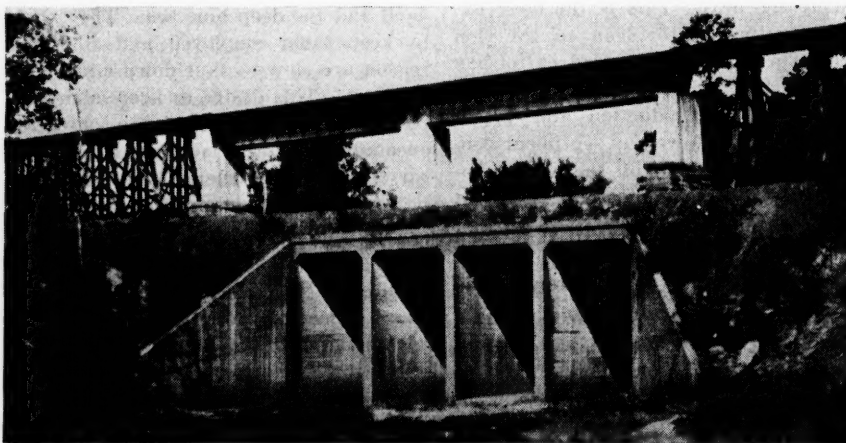
Edna, Tex.—Plans are being considered by the Jackson County Commissioners for an election on a bond issue of \$2,000,000 for road building and refunding purposes, a tentative date having been set for April 18. Of the total, it is understood that \$1,700,000 of the proposed bonds would be used for road construction and \$300,000 for refunding.

Buys 800,000 Barrels Cement

Oklahoma City, Okla.—The State Highway Commission awarded contract to the O. K. Portland Cement Co., Ada, Okla., for 800,000 barrels of cement with the privilege of purchasing up to 1,000,000 barrels.

\$5,000,000 Road Bonds Sold

Charleston, W. Va.—Road bonds in the amount of \$5,000,000, of 3¼ and 4½ per cent, have been sold by the State of West Virginia to a syndicate headed by the Chase Securities Corporation, New York, at 100.0121.



Said to be Largest Culvert in the Southeast. In Gwinnett County, Georgia

AVIATION, AIRPORTS AND AIRWAYS

Coast-To-Coast Air Service

Washington, D. C.—The Postoffice Department announces the inauguration April 1 of additional air mail-passenger schedules, including a through air mail-passenger service with trimotor planes between the Atlantic and Pacific coasts, westbound planes to leave New York at 9 A. M. and to arrive at San Francisco at 1.18 P. M. the following day. Eastbound planes will leave San Francisco at 12.45 P. M. and arrive at New York at 7.24 P. M. the next day. With the new schedules, a short cut to South America will be provided, with a direct Richmond, Va., to Jacksonville, Fla. round trip via Raleigh, N. C.; Florence, S. C., and Savannah, Ga. According to Assistant Postmaster General Glover, the new service will total 85,555 miles each 24 hours, divided into 69,075 miles of combined air mail-passenger service; 6480 miles of exclusive air mail service and 10,000 miles of exclusive passenger service. Additional schedules were announced for the National Air Transport, Eastern Air Transport, Trans-American Air Lines Corporation and the Boeing Air Transport, Inc.

Airplanes for Emergencies

The adaptability of the airplane for emergencies is shown in the recent use of a plane for transporting a machine part from Dayton to Cleveland, Ohio, which enabled the plant of E. F. Houserman & Co., of the latter city, to continue operations almost without interruption on the manufacture of metal partitions for the Empire State Building, New York. A rolling machine broke down in the Houserman plant at 4 o'clock in the morning and by long distance telephone it was learned from the Vance Engineering Co., Dayton, that delivery on a new roller part could be made in a few hours. By 10.30 A. M. the part was ready and a plane of the American Airways, Inc., Cincinnati, was dispatched from Cleveland, picked up the part at 11.30 A. M. and delivered it at Cleveland at 1.15 o'clock that afternoon. At 3 o'clock the machine was again in operation, it is said.

\$8,800,000 Plane Exports

Washington, D. C.—American exports of civil and military aircraft and aeronautic products in 1930 amounted to \$8,806,396, according to the aeronautics division of the Department of Commerce. As compared with 1929 exports, these

figures show a decrease of \$395,989. Exports reached 29 markets in 1930 not sold during the previous year, and China and Peru replaced Canada as leading markets. A total of 321 aircraft was exported and 377 engines.

National Aircraft Show

In addition to 200,000 square feet of floor space in a large hangar, the National Aircraft Show to be held in Detroit, Mich., April 11-19, will require 30,000 additional square feet to accommodate 26 airplane and accessory exhibitors, according to Ray Cooper, Detroit, manager of the show. The exhibition is expected to be the largest of its kind ever held.

Compendium of Airport Changes

According to a compendium of alterations to airports, issued by the Baltimore Hydrographic Office for the benefit of Atlantic coastal flyers, a temporary sea-plane ramp has been constructed on the southwestern side of the Municipal Airport at Boston, Mass.; the Northwest Airways near Amsterdam, N. Y., is being graded and is expected to be open for general use in the late spring, with only a small area for landing now available. The Hoover Field at the Virginia end of the Highway Bridge over the Potomac River, now a part of the Washington Airport, is not available for the landing of planes, but is being reserved for servicing and other purposes.

Air Travel Promotes Business

By using an airplane instead of an automobile on business trips, B. C. Skinner, president of the Florida Citrus Machinery Co., Dunedin, Fla., is able to enjoy breakfast at home, rather than to arise at sunrise and get out on the road.

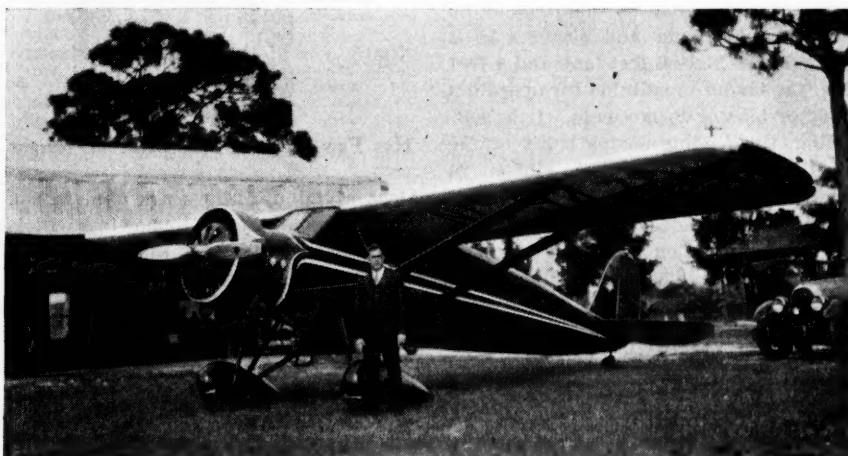
"I can reach business appointments by 9 A. M. at practically any town in Florida," Mr. Skinner adds, "and can work till 5 P. M. at almost any point and be home in time for supper. Frequently, too, I spend half a day in my office and make business calls in the afternoon, which would be impossible by automobile."

As a director in the Food Machinery Corporation, of which the Florida Citrus

Machinery Co. is a division, Mr. Skinner has made air trips to branches and plants at Buffalo, N. Y.; Chicago, Lansing, Mich.; Riverside, Cal.; San Jose, Portland, Ore., and in Texas. At 120 miles an hour, the fuel consumption is computed at seven miles per gallon.

The number of airports in Florida is "increasing rapidly," Mr. Skinner concludes, thus enabling him to make "better and better use of the plane" as time goes on.

Mr. Skinner uses a Stinson, Jr. cabin plane, powered with a Pratt & Whitney Wasp motor. It is capable of making about 145 miles an hour, although the cruising speed is 125 miles an hour.

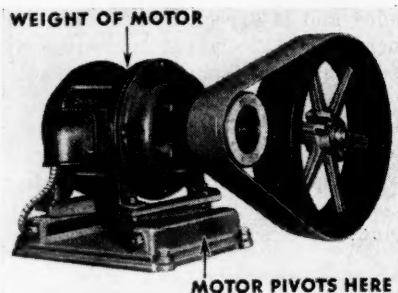


B. C. Skinner, President of the Florida Citrus Machinery Co., and His Airplane

NEW AND IMPROVED EQUIPMENT

Short-Center Drive

The Rockwood Manufacturing Co., Indianapolis, Ind., a division of General Fibre Products, Inc., Indianapolis, has introduced the Rockwood short-center flat belt drive, described as an important development in the power transmission field. The drive comprises a Rockwood



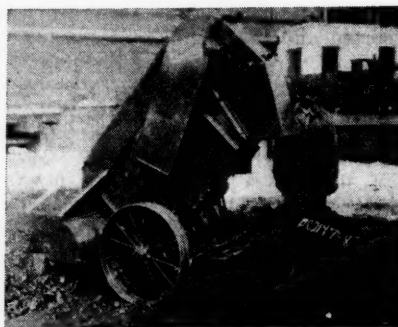
Rockwood Flat Belt Drive

motor base, two Rockwood pulleys and a Rockwood-approved leather belt, with the motor mounted on a free-swinging pivot. Belt tension is maintained by the weight of the motor and the correct belt tension once established for any drive is said to be unchanged by belt stretch or centrifugal force. Stock drives are available in sizes from 1 to 50 horsepower.

Small Industrial Bucket Loader

A small bucket loader for handling coal for boiler rooms, for bagging anthracite and loading wheelbarrows, buggies and conveyor hoppers is announced by the Barber-Greene Company, Aurora, Ill. Designed primarily for nut, slack and anthracite coal, the new loader will handle, it is said, any bulk material which contains no greater than 4-inch lumps, and is suited for small handling jobs in boiler rooms and plants. As it is only 7 feet high, 6 feet long and 4 feet wide, the loader is suitable for operation inside of bins or in box cars. It is self-feeding, the feeding device being of the spiral ribbon type with a ribbon 24 inches in diameter, while the buckets are of special welded steel 10 by 4 $\frac{3}{4}$ by 6 inches, mounted on a combination steel and M I chain. The bucket line is enclosed to eliminate dust and, when needed, a canvas chute is attached to the discharge end of the machine to take care of the dust from that end of the bucket or wheelbarrow. Two 30-inch roller bearing wheels, with a 6-inch face, and a 10-inch roller bearing caster wheel for steering are the mounting for this

loader, which is known as the Barber-Greene model 63. The machine is designed for electric drive, having a 5

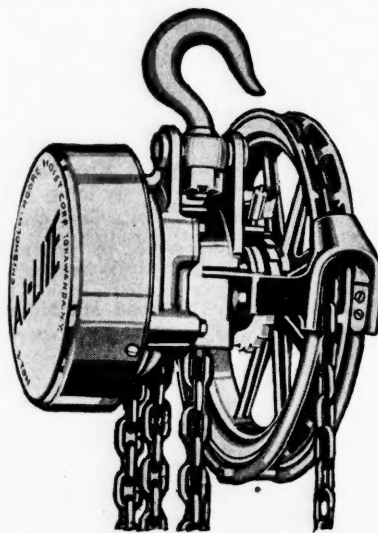


Designed for Coal Handling

horsepower ball-bearing electric motor, enclosed and fan cooled. The weight of the unit with motor is 2125 pounds.

Aluminum-Alloy Chain Hoist

The Chisholm-Moore Hoist Corporation, Tonawanda, N. Y., announces an aluminum-alloy chain hoist, Al-Lite, said to be the first of its kind, very light, with few parts and unusual strength. Only



Has Few Parts and Is Light in Weight

Alcoa aluminum alloys are used in construction and the first showing will be at the Second National Industrial Exposition, Cleveland, Ohio, April 13-18. Chisholm-Moore distributors will be ready to show the new hoist April 15. It is provided with an Inswell chain tested to a 50 per cent overload, Alemite lubrication, hardened and ground ball bearings, planetary type gears and dust-proof housing. The hoist is rugged in design and construction; has an adjustable

brake, is of bright aluminum finish and resists corrosion. As it may be handled by one man, maintenance costs are reduced, it is said, and hazards are eliminated.

Ceiling Fan and Light

A new type of ceiling fan has been introduced by the Mid-West Chandelier Co., North Kansas City, Mo., whereby a lighting fixture may be placed under the fan motor and the motor and light operated from the same circuit. The unit is known as the Mid-West Fan-Lite, the fan consisting of four folding blades with a 36-inch spread when opened, and



Showing Fan Blades Folded

concealed over the lighting fixture when closed. The blades open automatically when the fan is turned on and automatically fold back when it is turned off, being held stationary by four steel springs. Blades are of aluminum and the folding mechanism is ball-bearing. The motor is 16-pole, squirrel cage, induction type, rated at 60 watts, the fan being mounted directly above and connected with it. A system of lubrication is used, said to make unnecessary the oiling of the motor more than once a year.

Page Powdered Coal Igniter

S. C. Page of the Page Engineering Company, New York, is the inventor of a device for igniting furnaces burning pulverized coal, for which F. W. Linaker was recently given credit in this department. The Page Engineering Company builds the equipment and Mr. Linaker has the exclusive sales of it in the United States.

CONSTRUCTION DEPARTMENT and NEW ENTERPRISES

Covering the initial announcements of new undertakings with additional information about enterprises previously mentioned. The date at the end of an item indicates preliminary facts were given in a previous issue.

When writing to a new firm or corporation the name of at least one of the incorporators should be placed on the envelope to expedite its handling by the local postoffice. Mail may be delayed unless complete address is given.

Building and Construction Proposed and Contracts Awarded; Manufacturing, Mining, Power, and Land Developments; Public Works; Transportation; Communication; Financial Enterprises; New Business Opportunities Reported in the Sixteen Southern States.

The Daily Construction Bulletin of the Manufacturers Record gives each business day advance news published in this weekly review. It is invaluable to those requiring prompt information. Subscription price \$40.00 a year.

Airports, Airplane Plants, Etc.

Ala., Birmingham—Independent Paving Co., Birmingham, has contract at \$38,800, for 40,000 square yards coarse aggregate asphalt conc., 2-in. on 6-in. rolled stone on slag base for municipal airport runway. 1-1

Ark., Little Rock—Bd. of Public Affairs, let contract to J. W. Anderson, 2219 Scott St., for remodeling 2 buildings at Municipal Airport for use as passenger terminal and administration building.

Fla., Daytona Beach—Robt. W. Orrell, Ocean Dunes Road, Daytona Beach, reported, construct flying service plant at municipal airport; steel and tile hangar, 40x36 ft., and 40x60 ft.; install motor pumps, underground storage tanks, shop facilities, etc.; Laurence A. Schmarje, in charge of work for Air Service, Inc., owners. 1-22

Ga., Athens—City, reported, plans improvements to airport.

Md., Baltimore—Bd. of Estimates approved expenditure of \$150,000 for strengthening bulkheads at Municipal Airport; construct berm or protecting wall, such as sand and clay before main bulkhead; Arundel Corp., Pier 2, Pratt St., will probably receive contract; Charles F. Goob, City Engr.

Miss., Laurel—City, M. W. McLaurin, Mayor, receives bids April 6 for construction of airplane hangar. See Want Section—Bids Asked.

Tex., Duncan Field, San Antonio—E. A. Huebner, 329 Moore Bldg., Fort Sam Houston, reported, has contract for 1 story, 83x68 ft., brick, struc. steel oil reclamation building for government.

Texas—W. S. Erwin, Chief, Division of Supplies, Dept. of Commerce, Washington, D. C., receives bids April 30 for installing lighting facilities on Phoenix-El Paso section of San Diego-El Paso Airway. See Want Section—Bids Asked.

Tex., Galveston—City, reported, has had estimate prepared by J. K. Beretta, of J. W. Beretta, Engineers, Inc., Natl. Bank of Commerce Bldg., for work at airport, exclusive of hangars and buildings; cost \$27,000; work includes grading and filling in of approximately 40 acres; removal of drainage ditch; clearing field and rebuilding fences; grading roads; temporary treatment of 4 runways, etc. 12-25

Tex., San Antonio—U. S. Govt., care of Capt. H. B. Nurse, Const. Q. M., Fort Sam Houston, expend \$22,000 for repairs to hangars, Kelly Field.

Va., Hampton Roads—Belmont Iron Works, 22nd St. and Washington Ave., Philadelphia, Pa., reported, has contract for 450 tons struc. steel for hangar. 3-5

Bridges, Culverts and Viaducts

Proposed Construction

Alabama—Mississippi—State Highway Comsn. of Alabama, Langdon G. Smith, Director, and State Highway Comsn. of Mississippi, C. N. Williamson, Director, at office of Alabama State Highway Dept., Montgomery, opens bids Apr. 28 for 1400-ft. bridge over Escatawpa River, Mobile, Ala., and George County, Miss., near Wilmer, Ala., 1000 cu. yd. bridge conc. Class "A," 217,000

lb. deformed bar reinforcement, 443,000 lb. struc. steel, 29,300 f. b. m. treated bridge timber, 9600 lin. ft. treated timber piling furnished, 9300 lin. ft. treated timber piling driven, 1000 lin. ft. untreated foundation piling furnished, 900 lin. ft. untreated foundation piling driven, 2711 lin. ft. type "B" handrail.

D. C., Washington—Commrs., District of Columbia, District Bldg., have low bid from W. P. Thurston Co., Inc., 301 S. Fourth St., Richmond, Va., at \$159,440, for removal and construction of Klingle Valley bridge. 3-19

Kentucky—See Roads, Streets and Paving.

Louisiana—State Highway Comsn., O. K. Allen, Chmn., Baton Rouge, has plans approved by War Dept., Washington, D. C., for bridge over Mermentau River near Lake Arthur, and for bridge over Bogue Chitto River near Bogalusa.

Miss., Natchez—State Highway Comsn., Gus A. Draper, Engr., Jackson, rebuild bridge recently collapsed south of here; \$50,000 to \$60,000.

Mo., Branson—State Highway Dept., T. H. Cutler, Ch. Engr., Jefferson City, advises regarding bridge over White River, U. S. 65, between Branson and Hollister, Taney County, just started drawing plans and contract will probably be let latter part of May; layout for crossing consists of 5 195-ft. rein. conc. open spandrel arch spans with 2 55-ft. girder approach spans, total length of structure, 1085 ft., 20-ft. roadway, 5-ft. walk on each side; \$150,000. 3-26

Mo., Hannibal—Missouri Public Service Comsn., Jefferson City, authorized State Highway Comsn., T. H. Cutler, Ch. Engr., Jefferson City, to separate grade crossing of Chicago, Burlington & Quincy R. R. Co., A. W. Newton, Ch. Engr., Chicago, Ill., and Wabash Ry. Co., W. R. Bennett, Ch. Engr., St. Louis, by constructing rein. conc. viaduct over tracks, costing \$55,000.

North Carolina—State Highway Comsn. has low bids for 8 bridges. See Roads, Streets and Paving.

Oklahoma—State Highway Comsn., has low bids for 5 bridges. See Roads, Streets and Paving.

Oklahoma—State Highway Comsn., Sam R. Hawks, Chmn., Oklahoma City, plans \$125,000 bridge over Cimarron River, Logan County, near Guthrie; 4 span, 660 ft. trusses.

Okl., Muskogee—Muskogee County Commrs., have preliminary plans for \$200,000, 12-span, 1700-ft. steel truss bridge on conc. piers over Arkansas River, Yahola; C. R. Morgan, Engr., Muskogee.

SOUTH CAROLINA—State Highway Comsn., Ben M. Sawyer, Ch. Commr., Columbia, opens bids Apr. 7 for 14 bridges in following counties:

Beaufort—4 rein. conc. struc. steel and treated timber bridges, Route 33, between canal, 2088 lin. ft. treated timber piles, 41,417 Hardeeville and Bluffton, over Rose Dew Creek, Stoney Creek, New River and over lb. rein. steel, 71,798 lb. steel superstruc., State Proj. 760-A;

Chesterfield—rein. conc. overhead bridge over S. A. L. Ry. near McBee, Route 1, 90,000 lb. rein. steel, FAP 291-B Extension;

Darlington—rein. conc. bridge, Route 30, between Hartsville and intersection of State Route 30 and U. S. Route 61, 36,248 lb. rein. steel, SP 757-B;

Kershaw—4 rein. conc. struc. steel and treated timber bridges, Route 97, between Liberty Hill and intersection with Route 26, over Beaver Creek, White Oak Creek, Granney's Quarter Creek and Sanders Creek, 4206 lin. ft. treated timber piles, 87,846 lb. rein. steel, 151,078 lb. struc. steel, SP 758;

Lee—rein. conc. struc. steel and treated timber bridge Route 30, near Meredith, over S. A. L. Ry., between Bishopville and Sumter, 1375 lin. ft. treated timber piles, 14,000 lb. rein. steel, 44,900 lb. struc. steel, FAP 238;

Union—rein. conc. struc. steel and treated timber overhead bridge, U. S. Route 76, over S. A. L. Ry., between Whitmire and Union, 18,000 lb. rein. steel, 33,000 lb. steel superstructure, 2000 lb. hardware, FAP 82 Reop.;

Williamsburg—rein. conc. bridge over Johnson's Creek, Route 26, near Andrews, between Andrews and intersection of Routes 26 and 261, 70,707 lb. rein. steel, FAP 296 No. 1; raising existing 1335-ft. treated timber bridge and constructing 825-ft. extension thereto over Black River and Black River Swamp, between Kingstree and Andrews, Route 26, 4665 lin. ft. treated pile timber piles, 200 tons riprap, 19,214 lb. hardware and 185,8367 m. b. m. treated lumber.

Tex., Dallas—See Roads, Streets and Paving.

Tex., Houston—City, J. M. Nagle, City Engr., extend Scott St. bridge over Brays Bayou 40 ft. on northern side.

Tex., Houston—Harris County Commrs. Court, Charles R. Halle, County Engr., has low bid from Don Hall, Union Natl. Bank Bldg., for bridge over Simm's Bayou, La Porte road.

Virginia—State Dept. of Highways receives bids for 3 bridges. See Roads, Streets and Paving.

West Virginia—State Road Comsn. receives bids for 2 bridges. See Roads, Streets and Paving.

Contracts Awarded

Ala., Birmingham—City, A. J. Hawkins, City Engr., let contract to A. J. Salay, at \$9861, for rein. conc. bridge over Village Creek, N. 16th St.

Arkansas State Highway Comsn. let contracts for 16 bridges. See Roads, Streets and Paving.

Georgia—State Highway Bd. let contracts for 2 bridge projects. See Roads, Streets and Paving.

Tex., Houston—Harris County, Charles R. Halle, County Engr., let contract to Russ-Mitchell, Inc., Petroleum Bldg., at \$12,194 for bridge over Goose Creek, Market St., Goose Creek road.

Canning and Packing Plants

Tex., Mission—C. C. McElwain, reported, construct 750-car fruit curing and packing plant for American Fruit Growers properties in the Valley.

Concrete and Cement Plants

Ark., Fort Smith—W. E. Womble & Sons, 1500 May St., establish plant for manufacture concrete and steel fence posts.

Cotton Compresses and Gins

Ala., Attalla—Anderson, Clayton & Co., Cotton Exchange Bldg., Houston, Tex., reported, acquired Warehouse No. 2 of Interstate Compress and Warehouse Co.; will operate.

Tex., Houston—Alexander Sprunt & Sons, Inc., capital \$30,000, chartered; W. L. Walker, 2509 Wheeler St.

Tex., Iowa Park—Kemgas Cotton Seed Delinting Co., capital \$50,000, incorporated; S. B. Jackson, J. P. Lusk.

Tex., Memphis—T. T. Harrison Gin Co., capital \$50,000, incorporated; T. A. Harrison, T. R. Harrison.

Drainage, Dredging and Irrigation

Fla., Okeechobee—U. S. Engr. Office, Jacksonville, soon let contracts for levee or dike and cross state canals in connection with Okeechobee flood project.

Ga., Savannah—U. S. Engr. Office reviewing Savannah River navigation project with view to establishing 9-ft. channel, Augusta to Savannah.

Ky., Louisville—U. S. Engr. Office plans dredging Walker's Bar and sand bar near Pryor's Island when present activities at Sisters' Island are completed.

Tex., Eagle Pass—Maverick County Water Control and Improvement Dist. No. 1, William L. Rockwell, Supv. Engr., soon let contracts for distribution system in connection with irrigation system now under construction; construction on main canal 50% complete; system includes 60,000 acres of gravity land. 7-31-29

Electric Light and Power

Electric light and power work in connection with many LAND DEVELOPMENT operations involves the expenditure of large sums of money. See that classification for details.

Ala., Huntsville—Alabama Power Co., Birmingham, Ala., constructing combination garage, service building and warehouse; 75x90 ft.; 2 story without basement; steel frame with brick walls; conc. floors and conc. roof plastered and portion of second floor with slab, covered with built-up roof; all walls have suspended plastered ceiling; install modulation heating system; building will be used chiefly for housing and repairing automotive equipment and for testing and servicing electrical equipment; Allied Engineers, Inc., Birmingham, are general contractors and will have complete charge of designing, constructing and awarding sub-contracts. 3-19

Ky., Mount Sterling—Burns & McDonnell Engineering Co., 406 Interstate Bldg., Kansas City, Mo., preparing report in connection with proposed municipal power plant. 3-26

La., Baton Rouge—Louisiana Steam Products, Inc., subsidiary of Engineers Public Service Co., 120 Broadway, New York, reported, plans additional boiler capacity, initial shipment for construction work to arrive about May 1.

La., Oakdale—City voted \$90,000 bonds for constructing, acquiring and extending electric light and power plant. 2-19

Mo., Clayton, St. Louis—Metropolitan Utilities Co., incorporated; James A. Busch, Melville B. Hall.

Mo., Kansas City—Kansas City Public Service Co. considering expenditure during 1931 of about \$1,000,000 for reconstructing of street car tracks, erection of office building, special work, etc.; budget recommendation will be acted on at meeting in April.

Tex., Eagle Pass—Central Power and Light Co., Alamo Natl. Bank Bldg., San Antonio, has plans in progress for power plant; 2 and 3 story; 40x100 ft.; L. F. Harza Engineering Co., Designing Engr., 20 N. Wacker Drive, Chicago, Ill.

Tex., Galveston—Burns & McDonnell Engineering Co., Interstate Bldg., Kansas City, Mo., estimated \$986,500 as cost of installing municipal electric plant, including power plant, boiler plant equipment, turbine room equipment and distribution system.

Virginia—Virginia Public Service Co., Charlottesville, announced company's budget for 1931 authorizes expenditure of \$4,562,019 for improvements and extensions to system; company has plants Alexandria, Clifton Forge and Charlottesville, Va., and hydro electric developments at Emporia Balcony Falls, Halifax and Harpers Ferry.

Va., Farmville—Virginia Public Service Corp., Charlottesville, negotiating for 30 yr. franchise and for city lighting system.

Va., Quantico—Hamilton Engineering Co., Charlotte, N. C., reported, low bidder for boiler plant at Marine Barracks. 2-19

Va., Richmond—Virginia Electric and Power Co. submitted proposal to City Council to take over and modernize city's white way illumination system.

Foundry and Machine Plants

Mo., St. Louis—Bd. of Directors of Busch-Sulzer Bros. Diesel Engine Co., Edw. B. Poliste, Pres., authorized construction of new erecting shop, suitable for testing Diesel engines of large size up to 25,000 h. p. and an extension of iron foundry with a 75 ton crane; W. J. Knight & Co., Engrs., Wainwright Bldg., retained to draw plans and supervise work.

Garages and Filling Stations

Md., Baltimore—Calvert Garage Co., reported, let contract to J. M. Pistorio, 3427 Mondawmin Ave., for garage and service station.

Md., Baltimore—Atlantic Refining Co., Philadelphia, Pa., reported, construct filling station, 2520 Liberty Heights Ave.; brick and stucco; 1 story; C. J. Cutting, Archt., care of owner.

Md., Baltimore—Northwestern Land Co., Harry Silver, Sec., 215 N. Calvert St., construct service station, 3201 W. North Ave.; owner builder.

Md., Havre de Grace—American Oil Co., American Bldg., Baltimore, reported, plans filling station improvements.

Mo., St. Louis—Goodrich Silvertown, Inc., Akron, O., reported, erect garage 3500 Gravois St.; 1 story; 80x112 ft.; steam heat; cost \$25,000.

Mo., University City, St. Louis—Lubrite Refining Co., 3504 Washington St., construct gas station, 720 Delmar St.; 2 story, brick and stucco; B. C. Wagoner, Builder, 7350 Wellington St.

S. C., Greenwood—Lola Bell, Due West, construct garage south side of Maxwell Ave.; 66x106 ft.; brick; contain 11 skylights.

S. C., Greenville—Richard F. Watson, 113 James St., reported, interested in erection of automobile accessory and service station Buncombe and Academy Sts.

Tex., Dalhart—Continental Oil Co., erecting \$14,000 filling and auto service station Seventh St. and Denrock Ave.; R. C. Beckett, in charge.

Tex., Yoakum—Swenson Motor Co., capital \$50,000, incorporated; C. D. Schwab, A. W. Swenson.

Gas and Oil Enterprises

Fla., DeFuniak Springs—Oil City Corp., incorporated; R. L. Estabrook, L. Bernard.

Louisiana—Arkansas Natural Gas Co., Shreveport, subsidiary of Cities Service Co., 60 Wall St., New York, reported, begin immediate construction of oil pipe line to extend from new East Texas field near Longview to Shreveport; main line 70 miles long, of 8-in. pipe, initial daily capacity 16,000 bbls. crude oil; install booster station later to increase capacity of line to approximately 30,000 bbls. daily; in addition to main line several feeder lines will be constructed to supply main trunk line; portion of oil transported through the line will be used by Louisiana Oil Refining Co. and Cities Service Co., near Shreveport, balance shipped to Gulf Coast points; Ford, Bacon & Davis, Inc., Engineers, 39 Broadway, New York, reported, contractors. 3-19

N. C., Durham—Durham Gas Co., L. T. W. Timberlake, Mgr., reported, having survey of plant made for improvements during next year.

Okla., Guthrie—City voted to cancel \$225,000 bonds issued last June and awarded gas franchise to Western Service Corp. of Oklahoma City.

Okla., Oklahoma City—Black Gold Refining Co., D. A. Corcoran, Pres., reported, plans doubling capacity of plant.

Tenn., Knoxville—Walter A. Jones, of Eastern Tennessee Oil and Gas Co., applied for franchise to construct pipe and distribution system in Knoxville; natural gas to be supplied from Sunbright field; company owns and controls 200,000 acres natural gas territory in Scott, Morgan, and Cumberland counties; associated with Mr. Jones are G. H. Saville, Columbus, O., and W. A. Messer, Sunbright; will expend about \$3,000,000.

Texas—A. O. Smith Corp., Milwaukee, Wis., reported, has contract for 50 miles of 12-in. pipe for oil line from east Texas to the Gulf for Texas Co., 135 E. 42nd St., New York. 3-19

Texas—Texas Co., 135 E. Forty-second St., New York, reported, let contract to Texas Pipe Line Co., a subsidiary, for construction of 50 mile extension of 8-in. pipe line connecting with main line running between Corsicana, San Augustine and Shreveport. 3-19

Tex., Archer City—Will Young erect refinery with daily capacity 250 bbl. crude oil daily; Claude Semm, Wichita Falls, in charge.

Tex., Brady—M. D. Carson, construct refinery; initial unit, cost \$10,000.

Tex., Dallas—Rianjo Petroleum Co., incorporated; E. S. Johnson, 1019 Main St.

Tex., Fort Worth—Arrow Refining Co., incorporated; F. H. Murphy, 2525 Hemphill St.

Tex., Fort Worth—Rose Oil Corp., incorporated; C. Rosenfield, Petroleum Bldg.

Tex., Houston—Globe Oil Co., incorporated; A. H. Wheeler, 4709 Austin St.

Tex., Laredo—E. A. Sterling & Co., capital \$25,000, incorporated; M. L. Sterling, Yale Hicks.

Tex., Longview—Midcontinent Oil Corp., incorporated; H. C. West, Glenn Gilbert.

Tex., Longview—East Texas Refining Co., Freeman W. Buford, Kennedy Bldg., Tulsa, Okla., reported, erect 6000 bbl. unit doubling capacity of present refinery; will construct 6-in. pipe line paralleling present 4-in. line from Lathrop area to Longview refinery. 2-19

Tex., Longview—Slick Petroleum Co., First Natl. Bank Bldg., Tulsa, Okla., reported, plans crude oil refinery of 2500 bbl. capacity; cost \$125,000.

Tex., Plainview—Ruffin-Kilgore Oil Co., Inc., capital \$30,000, chartered; C. T. Ruffin, L. E. Colvin.

Tex., San Angelo—Cardinal Oil Purchasing Co., incorporated; George D. Morgan, J. V. Schilling.

Tex., Texas City—Republic Oil & Refining Co., Danna D. Hovey, V. P., Houston, has work under way on cracking plant and tank farm at Texas City, located at southern end of city on 104 acre site, to cost about \$1,000,000; local unit will be complete cracking plant using Winkler-Koch cracking process, with production of 5000 bbls. daily, and tank farm of from 18 to 20 tanks of from 5000 bbls. to 80,000 bbl. capacity; crude oil will be supplied by Great Lake Oil Co. of Texon, an affiliate of Republic Oil & Refining Co.; plants will be built from material furnished by National Supply Co., Toledo, O., under supervision of R. B. Dunbar, engineer in charge of construction; contract for 24x32 ft., hollow tile building for office and laboratory let to V. Q. Davis and A. S. Tennale; portion of unit will be in operation by June; completion of entire plant in July. 3-16

Va., City Point, Hopewell—City Point Oil Co., reported, erect storage tank Railroad Ave. and Pierce Sts.; steel, 80 ft. in diam., 30 ft. high; Hammond Iron Works, Warren, Pa., Contr.

Ice and Cold-Storage Plants

Ky., Covington—Covington Ice Co., capital \$50,000, incorporated; Frank Sedler, Harry B. Mackoy.

Mo., Kansas City—Missouri Pacific Railroad Co., St. Louis, reported, establish car icing plant in Leeds industrial district, an investment of \$350,000; will replace smaller plant in Northeast industrial district; preliminary work to be under way by first of April; \$250,000 will be expended on erection and equipping ice manufacturing plant, ice warehouse and icing docks; production unit will manufacture 100 tons ice daily and storage building will have capacity of 5000 tons ice; icing docks, parallel with tracks for 1/4 mile will be 2 story and will be large enough for simultaneous icing of 120 cars; contract for developing ice plant let to American Refrigerator Transit Co., subsidiary of Missouri Pacific; Mountain Ice Co., 6611 Euclid Ave., Cleveland, Ohio, has contract for operating plant.

Tenn., Nashville—Atlantic Ice and Coal Co., 916 Fourth Ave., North, plans \$25,000 improvements to plant.

Tex., Beaumont—Decker Packing Co., E. S. Selby, Mgr., Mason City, Iowa, reported, having plans prepared for construction cold storage plant on Crockett St.; R. C. Heartfield, Engr., Goodhue Bldg.

Iron and Steel Plants

D. C., Washington—Potomac Iron Works, 1026 Sixth St., N. W., reported, construct 2 story, 20x102 ft., brick, shop and office; Samuel Alpher, Builder, 1207 Farragut St., N. W.

New Orleans, La.—Jones & Laughlin Steel Corporation, Pittsburgh, acquired steel fabricating, warehousing and distributing plant of Lukens Steel Co.; distribute products locally and by rail and water to South and Southwest, Pacific Coast and foreign cities.

Land Development

Fla., Daytona Beach—Armas Holding Co. incorporated; A. E. Samra, 815 Grandview Ave.

Fla., Miami Beach—Cocolobo Jay Co. chartered; W. Jay, Star Island.

Fla., St. Petersburg—Macutco Corp., incorporated; F. M. Harris, West Coast Title Bldg.

Fla., St. Petersburg—J. H. Stevens Co., Inc., chartered; J. H. Stevens, 800 20th Ave., North.

Mo., Kansas City—Jackson County Realty Co., capital \$100,000, incorporated; Alexander D. Saper, 416 Scarritt Bldg.

Mo., St. Louis—Oldmanchester Corp., incorporated; Edward W. Lake, Ferguson.

Mo., St. Louis—Boyd-Gibson Realty Corp., Bellefontaine Road, developing Green Acres subdivision; soon install streets.

Mo., St. Louis—B. P. Owen Organization, Frisco Bldg., developing Castle Point, 320 acres on north side of Chambers Rd.; grading and streets completed; other improvements contemplated.

N. C., Charlotte—City has 88 acres on east side of Statesville Ave. near city limits for development of West Elmwood Cemetery; site surveyed and partly designed; erect entrance way, office; build fences, etc.; work under direction city engineer. 3-19

N. C., High Point—General Holding Corp. incorporated; J. Elwood Cox, 201 Hamilton St.

N. C., Southern Pines—G. F. McKinney, acquired 1438 acres in Beaver Dam township; develop for hunting and fishing preserves; erect club house.

Tenn., Nashville—Allen & Hall Realty Co., incorporated; G. W. Allen, 208 Union St.

Tex., Fort Worth—Favorite Holding Co., incorporated; W. B. Newkirk, 1417 Eighth Ave.

Tex., Houston—Memorial Park Investment Co., B. C. Lucas, Pres., Niels Esperson Bldg., acquired 630 acres on Katy Road; develop subdivision; regrade and shell streets.

Va., Clarendon—Manor Realty Co., capital \$50,000, incorporated; Frank G. Campbell, Arlington.

Lumber Enterprises

Fla., Jacksonville—Florida-Louisiana Cypress Co., incorporated; J. F. Wigginton, 1839 Calhoun St., New Orleans, La., Pres.; formed as cypress distributing company to handle output of mills in Louisiana and Florida.

Fla., St. Petersburg—Littrell Lumber Co., incorporated; F. H. Littrell, 1315 First Ave., S.

Miss., Hazlehurst—T. A. Graves, Brookhaven, reported acquired tract of timber; establish band sawmill and planer.

Mo., St. Louis—Thomas E. Power Lumber Co., incorporated; Thomas E. Power, 4385 McPherson St.

Tex., Trinity—Texas Long Leaf Lumber Co., Paul T. Sanderson, Pres., taking over all assets and assuming all liabilities of Rock Creek Lumber Co. and Oakhurst Lumber Co.; increased capital \$750,000 to \$1,500,000; no new buildings or improvements contemplated.

Va., Norfolk—J. G. Cake Lumber Co., capital \$25,000, incorporated; C. W. Cake, 1066 W. 38th St.

Va., Norfolk—Camp Avenue Corp. incorporated; S. Anthony, Rosedale Apt.

Metal-Working Plants

Md., Baltimore—Lockwood Greene Engineers, Inc., Wrigley Bldg., Chicago, Ill., authorized Consolidated Engineering Co., 20 E. Franklin St., to proceed with general construction work on 3-story brick addition to plant, Fleet and Haven Sts., for Edward Katzinger Co., 1949 Cicero Ave., Chicago, Ill. (Local branch known as August Maag Co.), produce bakers, confectioners and ice cream manufacturers tools and utensils.

Mining

Ky., Princeton—Princeton Fluorspar Co., incorporated; John Huhgett, Lem Conger.

La., Bastrop—Louisiana Lime & Stone Co., E. B. Polse, Citizens State Bank & Trust Co., will erect 40 to 60 ton lime kiln at Bastrop, with hydrators, etc., using natural gas as fuel; no contract will be let for 30 days. 3-26

Miscellaneous Construction

D. C., Washington—Public Buildings and Grounds Comsn., Navy Bldg., opens bids Apr. 8 for tunnel about 200 ft. long under approaches to Memorial Bridge; 2100 cu. yd. conc., 211 tons rein. steel, known as cont. 55; bidders include: Chas. H. Tompkins Co., 1608 K St., N. W.; Fred Drew Co., 2539 Pa. Ave., N. W.; Geo. Hyman Construction Co., 1010 Vermont Ave., N. W.; A. L. Smith & Co., 2539 Pa. Ave., N. W.; Cranford Co., Inc., 3056 K St., N. W.; Spencer, White & Prentiss Co., Tower Bldg.; W. F. Brenizer & Co., 1501 S. Capital St.; Raymond Concrete Pile Co., Barr Bldg.; Rust Engineering Co., District Natl. Bank Bldg.; G. B. Mullin & Co., 1296 Upshur St., N. W.; Corson & Gruman Co., 33rd and K St., N. W.; National Construction Co., Arlington Memorial Bridge; Bright-Shepherd Co., Inc., 1415 K St., N. W., all Washington; Sanford & Brooks, South and Water Sts.; Merritt-Chapman & Scott, Fidelity Bldg.; Whiting-Turner Construction Co., Stewart Bldg.; C. J. Stileman Co., 1928 Annapolis Rd., all Baltimore, Md.; Triest & Earle, Real Estate Trust Bldg.; Ralph S. Herzog, 10 S. 18th St.; Lutz Construction Co., 2218 Chestnut St., all Philadelphia, Pa.; Fred Snare Corp., 114 Liberty St.; L. E. Meyers Construction Co., 84 William St.; Clements Engineering Corp., Mount Eden & Grand Concourse, all New York; Grier-Lowrance Co., Box 388, Alexandria, Va.; Hunkin-Conkey Construction Co., 12th and Walnut St., Cleveland, Ohio; Wiley-Maxon Construction Co., 423 Third St., Dayton, Ohio; H. P. Converse & Co., 114 Milk St., Boston, Mass.; Wm. MacDonald Construction Co., Syndicate Trust Bldg., St. Louis, Mo.; Newport Construction & Engineering Co., Lee Hall, Va.; W. P. Thurston, Box 2089, Richmond, Va.; John Nagel, Engr.

Fla., Boynton—Col. R. R. McCormick, Roosevelt Rd., Chicago, Ill., let contract to G. O. Reed, Inc., 1345 20th St., Miami Beach, at approx. \$175,000 for approx. 2000 lin. ft. conc. gravity seawall on steel sheet piling, and dredging approx. 75,000 cu. yd. material from Lake Worth; Zurwelle & Whittaker, Engrs., Fisher Bldg., Miami Beach. 3-5

Fla., Jacksonville—U. S. Engr. Office let contract to Ralph E. Spaulding, 1252 Windsor Place, for \$25,000 addition to warehouse and storage shed near municipal docks and terminals; 60x150 ft. steel, rein. conc. foundations and floors; house equipment, supplies and spare parts for dredges.

Louisiana—U. S. Engr. Office, foot of Prytania St., New Orleans, let contract to Lower Coast Construction Co., Godchaux Bldg., New Orleans, at \$16,170, for approx. 53,000 cu. yd. earthwork, Pontchartrain Levee Dist., Second New Orleans Dist. 2-19

Louisiana—U. S. Engr. Office, foot of Prytania St., New Orleans, let contract to Highways Construction Co., Inc., Godchaux Bldg., New Orleans, for approx. 25,000 cu. yd. earthwork, Pontchartrain Levee Dist., Second New Orleans Dist. 2-26

Md., Baltimore—Jacob Epstein, Baltimore Trust Bldg., let contract to John E. Marshall & Sons Co., 117 South St., for \$100,000 mausoleum, 6130 O'Donnell St.; granite, 1 story; Benj. Frank, Archt., 517 N. Charles St.

Md., Salisbury—Atlantic Mausoleum Co., Salisbury, construct \$100,000 mausoleum, Wicomico Memorial Park, with own forces; will take bids later on granite, marble, bronze, plastering and roofing, probably in about 3 months; F. G. Fahnestock, Jr., Archt., Harrisburg, Pa. 3-5

Mississippi—U. S. Engr. Office, P. O. Box 667, Vicksburg, let contract to Yale & Reagan Co. and Benson-Kasier Co., both Merchants-Laclede Bldg., St. Louis, Mo., for 706,000 cu. yd. earthwork, Greenville Front Enlargement. 3-19

Missouri—U. S. Engr. Office, McCall Bldg., Memphis, Tenn., let contracts for 322,000 cu. yd. earthwork, Lower St. Francis Levee Dist., Mississippi River and tributaries: Item 22F, 162,000 cu. yd.; Item 22L, 160,000 cu. yd., both to Rodgers, Jones & Uzzelle, 61 S. Front St., Memphis, Tenn. 3-26

Mo., Kansas City—Missouri-Kansas-Texas R. R. Co., St. Louis, let contract to James Stewart Corp., 343 S. Dearborn St., Chicago, Ill., for rein. conc. addition to elevator; 17 circular bins, 25 ft. inside diam., with 12 outerspace and 4 interspace bins, with total capacity of 1,054,000 bu.; cost complete, \$225,000; to be finished by June 10; construction in direct charge of A. L. Sparks, Archt., under supervision of F. Ringer, Ch. Engr.

Mo., Kansas City—Pla-Mor, Lyle L. and Paul M. Fogel, 3142 Main St., plans large swimming pool at amusement center, Main, Spring and Wyandotte Sts.; 200x100 ft., vary in depth from 3 to 9 ft.; dressing and locker rooms to be provided.

Mo., Jefferson City—U. S. Engr. Office, Postal Telegraph Bldg., Kansas City, opens bids Apr. 24 for constructing about 2400 lin. ft. standard revetment, Missouri River, Murrays Bend, 3.6 mi. upstream from here.

Mo., South St. Joseph—U. S. Engr. Office, Postal Telegraph Bldg., Kansas City, opens bids April 4 for 1500 lin. standard pile clump dike, Missouri River, 2.8 mi. downstream from heat; \$100,000.

S. C., Charleston—U. S. Engr. Office let contract to Salmons Dredging Co., Charleston, at \$16,682, for shore protection. 2-19

S. C., Charleston—U. S. Engr. Office opens bids Apr. 23 for repairing south stone pier at U. S. Engr. Wharf; granite blocks will be leveled and their pile and conc. foundation renewed as may be found necessary; fender piles, dolphins and wharf logs will be renewed. 3-12

Tex., Brownwood—Austin Mill & Grain Co., Henry Stallings, Pres., receiving bids on materials for new unit of grain elevator; rein. conc. construction; taking bids on sand, gravel, cement and approx. 80,000 lb. rein. steel.

Tex., Port Arthur—City, J. W. O'Neal, Mayor, considering constructing breakwater, probably consisting of steel sheet piling at city slip to protect pleasure craft moored in inlet.

Tex., Texas City—U. S. Engr. Office, Milo P. Fox, Dist. Engr., Galveston, advises proposals for rubble mound dike near Texas City Channel have not yet been issued and will probably not be issued for a month. 3-19

Va., Great Bridge—U. S. Engr. Office, Norfolk, opens bids Apr. 14 for gate and valve operating machinery for guard lock in Inland Waterway. 2-26

W. Va., London—U. S. Engr. Office, Huntington, let contract to Northport Sand & Gravel Co., John L. Walsh, Northport, N. Y., at \$844,782 for pair of locks, Kanawha River.

Miscellaneous Enterprises

Ala., Birmingham—Highway Steel Products Co., 1324 McKinley Ave., Chicago Heights, Ill., opening branch at Birmingham, for manufacture of sheet metal products such as are needed in the building of concrete roads as well as building construction work. 3-26

Ala., Birmingham—Stockholders of American Security Life Insurance Co. and American Standard Life Insurance Co., both Birmingham, approved merger of two companies to form the American Life Insurance Co. of Alabama; company will have \$500,000 capital consisting of 100,000 shares of par value \$5 each.

Ark., Eureka Springs—Daily Times-Echo, Spring St., will replace burned machinery in newspaper and job printing plant; install linotype and automatic presses, contract let to Mergenthaler Linotype Co., 29 Ryerson St., Brooklyn, N. Y. See Want Section—Machinery and Supplies. 3-26

D. C., Washington—Dept. of Commerce, Bureau of Standards, advises will call for new bids to be opened April 7th for National Hydraulic Laboratory; also receiving bids April 10th for sluice gates and wall castings. See Want Section—Bids Asked. 3-19

D. C., Washington—Consolidated Engineering Co., 20 E. Franklin St., Baltimore, Md., reported, has contract for ice cream plant for M. J. Uline, Third and M Sts., N. W.; Kubitz & Koenig, Archts., Emerson Tower Bldg., Baltimore, Md.

Fla., Daytona Beach—Sun-Record Co., incorporated; C. A. Hiasen, T. F. Fleming.

Fla., Jacksonville—Ed L. Leonard & Co., Inc., chartered; J. B. Berrier, 132 E. Sixth St.

Fla., Miami—East Coast Tile Co., Inc., chartered; M. H. Hall, 2209 Segovia Circle, Coral Gables.

Fla., Miami—Becker Construction Co., incorporated; A. F. Becker, 129 N. E. First St.

Fla., New Smyrna—MacDonald-Chilton Boat Co., started construction of boat house at company's yards on N. Bridge causeway; installed modern machinery; increase storage capacity for boats; construct docks, etc.

Fla., Sarasota—Community Mausoleums, Inc., chartered; A. Schultz, R. E. Holton.

Florida—Standard Peat Products Corp., Suite 1239, 521 Fifth Ave., New York, planning to build 2 peat manufacturing plants in Florida; have options of 4 locations; definite location not decided final selection to be made in 2 weeks and work started immediately. See Want Section—Machinery and Supplies.

Fla., Tampa—Pur-N-Sweet Fruit Products, Inc., chartered; C. E. Beck, 105 W. Woodlawn Ave.

Ga., Atlanta—Flagler Co., Red Rock Bldg., reported, submitted bids on preliminary plans for bakery Elliott St. for National Biscuit Co.; brick and hollow tile; 2 story and basement. 3-19

Ga., Claxton—George Womble, reported, has contract for construction of bottling plant Claxton Coca Cola Bottling Co., 1 story; 40x45 ft.; conc. foundations; brick walls; tin roof; Pringle & Smith, Archt., Norris Bldg., Atlanta. 3-12

Ky., Dry Ridge—Kentucky Heating Springs Hotel & Mineral Water Co., capital \$50,000, incorporated; J. J. Shevlin, Wm. Clark.

Ky., Lexington—Fiske-Carter Construction Co., Greenville, S. C., constructing warehouses for American Suppliers, Inc.; gradings practically completed; brick work started; contract for 20-yr. bonded roof let to J. A. Piper Roofing Co., 116 W. Port St., Greenville, S. C.; most of lumber awarded to A. W. Allison, Gallivan Bldg., Greenville, S. C.; cement purchased from Penn-Dixie Portland Cement Co., James Bldg., Chattanooga, Tenn.

Ky., Louisville—J. L. Newman, Frankfort, reported, acquired Herald-Post Co.'s interest in Louisville Color Gravure Corp.

Ky., Owensboro—Prinz Baking Co., capital \$100,000, incorporated; H. Henry and Winfield H. Prinz.

La., New Orleans—New Orleans Houston & Corpus Christi Steamship Co., Inc., chartered; Nelson L. Proctor, 6121 N. Tonti St.

La., New Orleans—Mississippi Valley Barge Line Co., 408 Pine St., St. Louis, Mo., plans extension of service to include freight to and from points in Illinois Freight Assn. territory, giving line rate territory in Illinois, Indiana, Missouri and Wisconsin, in connection with 10 railroads.

La., New Orleans—American Barge Line Co., Canal Bank Bldg., applied to Interstate Commerce Comsn., Washington, D. C., for certificate to operate on Ohio, Mississippi, Illinois and Missouri Rivers; New Orleans.

Md., Baltimore—Merger effective of freight traffic of Baltimore & Philadelphia Steamboat Co. and B. & C. Line, Inc., under name of Ericsson Line, Inc., with headquarters at Pier 1, Light St.; Baltimore & Philadelphia Steamboat Co. continues to operate for passenger service.

Md., Childs—Maryland Paperboard Co., 7 St. Paul St., Baltimore, Walter G. Leimbach, Sec.-Treas., at present time is rehabilitating former properties of Marley Paper Mfg. Co., recently acquired; will go into production about July; all contracts let for improvements. 12-11

Mo., Joplin—Moderne Advertising Sign Co., capital \$50,000, incorporated; E. R. Pinet, 519 Connor St.

Mo., Kansas City—Building Maintenance Co., capital \$20,000, incorporated; Edw. E. Carpenter, 640 W. 52nd St.

Mo., Kansas City—Alonzo H. Gentry, Inc., incorporated; Alonzo H. Gentry, March Bldg.; engineering.

Mo., St. Louis—National Box Co., incorporated; B. C. Sauerbrunn, 5815 Cates Ave.

Mo., St. Louis—Laessig Oil Products Corp., 4839 Fyler, plans \$10,000 warehouse; 45 x 150 ft.

Mo., St. Louis—James R. Kearney Corp., 4230 Clayton Ave., let contract to Humes-Deal Co., Arcade Bldg., for erection of 3 story building adjoining property on Clayton Ave.; Aegerter & Bailey, Archts., Rwy. Exch. Bldg.; manufactures underground and overhead electrical equipment, etc.

Mo., St. Louis—Mississippi Valley Structural Steel Co., 20 N. Wacker Drive, Chicago, Ill., reported, has contract for 1000 tons struc. steel for building, High, Morgan and Twelfth Sts., to be occupied by Star-Chronicle Publishing Co. and erected by Midwest Industrial Development Co., 231 S. LaSalle St., Chicago, Ill. 10-9

N. C., Raleigh—Home Life Insurance Co., Durham, acquired Capital Life Insurance Co., Raleigh; will transfer equipment to Durham; operate under name Home Security Life Insurance Co.

N. C., Reidsville—Reidsville Bag Co., Inc., chartered; W. P. Richardson, Jr., and W. H. Holderness, Greensboro.

N. C., Roanoke Rapids—Curtis Harstromer, Hopewell, Va., and associates, reported, acquired Roanoke Fibre Board Co.; will operate; management of plant under direction of Uno Frykland.

N. C., Washington—K. K. Kennedy, 1711 Rollins Road, Greensboro, reported, interested in establishing creamery.

Tenn., Chattanooga—City Home Builders Co., incorporated; Charles S. Coffey, James Bldg.

Tenn., Crossville—Cumberland Plateau Handle Co., capital \$25,000, incorporated; J. R. Mitchell, A. L. Choate.

Tenn., Knoxville—Macdonald Steamotor Co., incorporated; L. G. Shedden, 402 Ben Hur Ave.

Tenn., LaFollette—Ausmus & Parrott Amusement Co., capital \$50,000, incorporated; W. H. Parrott.

Tex., Dallas—Welders Supply Co., 2722 Commerce St., increased capital \$50,000 to \$120,000.

Tex., Dallas—Otey Envelope Co., 2701 Cedar Springs St., increasing capital to \$55,000.

Tex., Dallas—Consolidation, reported, of National Security Life Insurance Co., Wichita Falls, and United Life Insurance Co., Dallas.

Tex., Dallas—Rogers, Inc., chartered; W. A. Craig, Jr., 4247 Buena Vista St.; builders.

Tex., El Paso—El Paso Co. (Printing), incorporated; John W. Frierson, 3216 Louisville St.

Tex., Kirbyville—Dr. Pepper Bottling Co., capital \$15,000, incorporated; A. L. Watson, W. P. Dowling.

Tex., Raymondville—Three Links Building Co., incorporated; A. R. Coulter, J. L. Curry.

Tex., Waxahachie—Cal Ramsey has contract for erection of Coca Cola Building, West Main St.; brick, 50x80 ft.; cost \$50,000; Charles M. Chappell, Engr., Koppers Bldg., Pittsburgh, Pa.

Va., Alexandria—George Washington Stone Corp., reported, plans rebuilding burned portion of plant. 3-19

Va., Portsmouth—City, reported, let contract to American LaFrance & Foamite Corp., 903 Erie St., Elmira, N. Y., for combination hose truck, chemical pumper and water pumper with capacity of 1000 gal. per minute.

Va., Tazewell—Tazewell Bluegrass Dairies, Inc., capital \$15,000, chartered; Reuben Goldman.

Va., Winchester—H. J. Heinz Co., Pittsburgh, Pa., let contract to George F. Hazelwood, Howard St., Cumberland, Md., for additional buildings to include brick and steel vinegar generator building, brick and steel vinegar bottling plant, etc. 2-12

Motor Bus Lines and Terminals

Maryland—Red Star Line, Inc., Chamber of Commerce Bldg., Baltimore, filed application with Public Service Comsn., Baltimore, for permit to establish motor bus line between Annapolis and Baltimore, connecting with ferries operated by Claiborne-Annapolis ferry.

Maryland—Baltimore Transfer Co., Monument and Forest St., applied to Public Service Comsn., Baltimore, for permission to operate passenger bus lines Baltimore and Annapolis.

N. C., Asheville—Tri-State Motor Transport Co., capital \$50,000, incorporated; Lee J. Smith, Arcade Bldg.

Va., Richmond—James River Transit Co., incorporated; J. L. Wright, 1453 Ocean View Ave., Norfolk.

W. Va., Bluefield—Pocahontas Transportation Co., C. C. Bldg., authorized by State Railroad Comsn., Charleston, to transfer its permit for line between Thorpe and Jenkin Jones to M. J. Belcher of Anawalt.

W. Va., Fairmont—Monongahela Transport Co., Fairmont, authorized by State Road Comsn., Charleston, to transfer its permit for line between Fairmont and Morgantown to White Star Lines of Wheeling.

Railways

Oklahoma-Texas—Panhhandle & Santa Fe Ry. Co., J. R. Hitchcock, V.-Pres. and Gen. Mgr., Amarillo, Tex., authorized by Interstate Commerce Comsn., Washington, to lease 84-mi. line of North Texas & Santa Fe, Spearman, Tex., to Shattuck, Okla., both subsidiaries of Atchison, Topeka & Santa Fe Ry., W. B. Storey, Pres., Chicago, Ill.

Oklahoma—Panhhandle & Santa Fe Ry. Co., J. R. Hitchcock, V.-Pres. and Gen. Mgr., Amarillo, Tex., applied to Interstate Commerce Comsn., Washington, for permission to operate over portion of Elkhart & Santa Fe Ry., Oklahoma-Texas line to Boise City, Okla., 22.5 mi.

Okla., Felt—Atchison, Topeka & Santa Fe Ry., G. W. Harris, Ch. Engr., Chicago, Ill., opens bids Apr. 6 for 59 mi. new line between Felt, Okla., and Clayton, N. M., and between Mt. Dora, N. M., and Gladstone. 5-8-30

Tex., San Angelo—Gulf & West Texas Ry., subsidiary of Southern Pacific Co., R. W. Barnes, Ch. Engr., Lines in Texas and Louisiana, Houston, authorized construction of 113-mi. line, San Angelo to San Antonio; construction to start at once. 12-25-30

Railway Shops and Terminals

Ky., Russell—Chesapeake & Ohio Ry. Co., C. W. Johns, Ch. Engr., Richmond, will resume construction of \$585,000 extension to classification yards, adding about 20,000 ft. of trackage to yards; work only about 15% complete; reported, build highway between Melrose, Russell and Worthington, costing \$25,000.

Roads, Streets and Paving

In connection with LAND DEVELOPMENT large sums are expended for roads, streets, paving and sidewalks. Details will be found under that classification.

Proposed Construction

Alabama—State Highway Comsn., Landon G. Smith, Highway Director, Montgomery, opens bids Apr. 7 for 7,001 mi. road between Perdido Station and Atmore, Escambia County, FAP 226-B, 83,000 sq. yd. pavement, including necessary grading, shoulder construction, guardrail, etc.

D. C., Washington—District Commrs. have low bids for street work: Corson & Gruman Co., 33rd and K St., N. W., at \$207,851, for resurfacing with sheet asphalt; Highway Engineering & Construction Co., Seventh and T St., N. E., at \$132,865, for cement conc. curbs; P. T. McDermott, 1014 Wisconsin Ave., N. W., at \$202,323, for conc. roadways. 3-5

Florida—State Road Dept., Tallahassee, has low bid from Morgan-Hill Paving Co., 71 N. E. 21st St., Miami, at \$261,490, for 6.28 mi. conc., Road 4, Broward County, FAP 78. 3-19

KENTUCKY—State Highway Comsn., H. D. Palmore, Engr., Frankfort, opens bids Apr. 29 for 8 roads in following counties:

Ballard—10.8 mi. surfacing, Wickliffe-Paducah road, end of paving in Wickliffe to La Center;

Caldwell—1.1 mi. grading, draining, surfacing, Princeton-Hopkinsville road, Princeton to Experiment Farm;

Carroll—bridge, 0.6 mi. grading, draining approaches, McCool's Creek, 5 mi. east of Carrollton, Carrollton-Ghent road;

Clinton—8.9 mi. grading, draining, Albany-Burkesville road, Albany to Cumberland County line, FAP 199 AG on which bids were received Mar. 11 and rejected;

Franklin—6.5 mi. grading, draining, Frankfort-Owenton road, end of grading, 7 mi. north of Bethel Church, to Owen County line;

Greenup—0.6 mi. surfacing, Greenup-Ashland road, end of conc. pavement east of city limit of Chinville to surface treated road to Russell;

Lyon-Caldwell—12.4 mi. grading, draining, Eddyville-Fredonia road, Kuttawa to Fredonia;

Trigg—16.9 mi. grading, draining, Cadiz-Tennessee State Line road, Cadiz to Tennessee State line.

Ky., Russell—See Railway Shops and Terminals.

La., Lake Providence—Town, Mayor and Bd. of Aldermen, opens bids Apr. 7 for paving Lake St.; J. M. Fourmy, Engr., Hammond.

La., New Orleans—City, Dept. of Public Finances, Office of City Pur. Agt., opens bids Apr. 7 for installing culverts, excavating ditches, paving, etc., incidental to surfacing roadway, Robert E. Lee Blvd., Canal Blvd. to Spanish Fort. 2-19

MARYLAND—State Roads Comsn., L. H. Steuart, Sec., Baltimore, Md., opens bids Apr. 7 for 4 concrete roads in following counties:

Somerset—0.55 mi., State Highway, Maryland Ave. to McCready Hospital, Cont. S-50-14;

Harford—3.89 mi., Jarrettsville-Upper Cross Roads road, end of Cont. H-64, near Putman toward Baltimore County Line, Cont. H-108-44, FAP 235-A;

Howard—0.40 mi., Baltimore-Washington Blvd. in ElkrIDGE, Cont. P-165-34, FAP 234.

Prince George's—1.40 mi., Suitland to Marlboro Pike at District Heights, Cont. P-165-34, FAP 234.

MARYLAND—State Roads Comsn., L. H. Steuart, Sec., Baltimore, has low bids for 6 roads:

Baltimore City—0.74 mi. sheet asphalt, Russell St., Cont. BC-102-74, National Paving & Contracting Co., Menlo Dr. & W. Md. R. R., 1 Alto Road, \$63,449; 0.6 mi. conc. shoulders, Washington Blvd., BC-100-74, Caton Construction Co., Halethorpe, Baltimore, \$1,043;

Baltimore County—2.99 mi. (alternates for resurfacing with rock asphalt and bitum. conc., Liberty road, Cont. B-189-711; Rock asphalt, Thomas Bennett & Hunter, West-

minster, \$39,555; bitum. conc., American Paving & Contracting Co., Montebello Ave. and B. & O. R. R., Baltimore, \$24,288;

Caroline County—2.0 mi. conc., Denton toward Tuckahoe, Cont. Co-65-24, Layfield & Waller Paving Co., Salisbury, \$32,994;

Dorchester—1.70 mi. conc., Mt. Holly to Airy, Cont. D-75-14, Old Line Construction Co., Chestertown, \$28,973;

Prince George's—1.0 mi. conc., Old Powder Factory road, Cont. P-162-32, Daniel Marine, 236 Albemarle St., Baltimore, \$17,219. 3-19

Md., Baltimore—City, Nathan L. Smith, Highways Engr., opens bids Apr. 8 for Sheet Asphalt Cont. 593, 8650 sq. yd.

Md., Baltimore—City, Nathan L. Smith, Highways Engr., has low bids for street work: Cement Concrete Cont. 590, 10,950 sq. yd., Daniel Marine, 236 Albemarle St., \$19,675; Sheet Asphalt Cont. 591, 8100 sq. yd., American Paving & Contracting Co., 25th and Montebello Ave., \$23,602. 3-19

Md., Sharpsburg—U. S. Army, Headquarters, Third Corps Area, 311 St. Paul St., has low bid from Catalano & Pecora, 3700 Eldorado Ave., at \$84,757, for roads, Antietam Battlefield. 3-19

Miss., Jackson—City Comsn. Council directed Clk. of Comsn. to advertise intention of calling bids for paving Magnolia St.

Miss., Vicksburg—Vicksburg Military Park, J. B. Holt, Supt., has low bid from Habert Cargile Construction Co., Birmingham, Ala., at \$35,969. 3-19

Mo., St. Louis—City, Bd. of Public Service, opens bids Apr. 21 for reconstructing and improving alleys, Lettings 4216 to and including 4228.

OKLAHOMA—State Highway Comsn., Sam R. Hawks, Chmn., Oklahoma City, has low bids for road and 5 bridges in following counties:

Atoka—2 bridges, Highway 75, over Coal and Sandy Creeks, between Atoka and Coal County line, D. C. Sampley, Sulphur, \$24,712;

Blaine—reflooring Bridgeport bridge over South Canadian River, Grant Williams, Oklahoma City, \$4051;

Haskell—steel work on bridge over Beaver Creek, State Highway 31, 1 mi. west of Kinta, Muskogee Iron Works, Muskogee, \$6039;

Pontotoc-Seminole—reflooring approaches to Ada-Konawa bridge over South Canadian River, Grant Williams, \$6601;

Seminole—graveling, State Highway 56, Saskawa to intersection with State Highway 48, 1 mi. west of Vamoosa; L. L. Massey, 3206 W. 12th St., Oklahoma City, \$5599.

NORTH CAROLINA—State Highway Comsn., John D. Waldrop, Engr., Raleigh, has low bids, totaling \$1,669,191, for 16 roads and 8 bridges in following counties:

Nash-Edgecombe—12.47 mi. dirt road, Route 95, Proj. 1250, P. R. Ashby & Co., 2204 Fairview Road, Raleigh, \$16,768;

Edgecombe—bridge and approaches, Tarboro, Route 90, No. 1260, T. A. Loving, Goldsboro, \$83,761;

Pasquotank—10.47 mi. hard surface, Route 34, No. 1751, R. G. Lassiter & Co., Raleigh Bk. and Tr. Bldg., Raleigh, \$207,109;

Cartaret—78 mi. hydraulic fill, Route 10, No. 2031, Harrison-Wright Co., 4 W. Third St., Charlotte, \$85,200;

Craven—7.49 mi. paving, Route 301, No. 2162, F. J. McGuire, Washington, D. C., \$134,582;

Chatham—6.82 mi. approaches to bridges over New River, Route 90, Beal Bros., Bear Creek, \$47,822; bridge, J. S. Bowers, Whiteville, \$69,417; No. 4012;

Durham—5.95 mi. conc., Route 751, No. 4161, Atlantic Bitulithic Co., Munsey Bldg., Washington, D. C., \$109,431;

Warren—2.98 mi. conc., Route 50, No. 4971, Highway Engineering & Construction Co., Shelbyville, Del., \$50,463;

Anson—structure, Route 80, No. 6071, McClelland Co., Latta Arcade, Charlotte, \$13,874;

Gaston—34 mi. bridge approaches, Route 16, C. Y. Thomason, Greenwood, S. C., \$13,107; overhead bridge, R. H. H. Blackwood, Kingsport, Tenn., \$71,479; No. 6302;

Richmond—8.68 mi. hard surface, Route 50, No. 6670, R. G. Lassiter & Co., \$138,201;

Rowan—8.79 mi. hard surface, Route 150, No. 6695, Noll Construction Co., Builders Bldg., Charlotte, \$146,989;

Scotland—16.61 mi., Route 241, No. 6813, Blythe Bros. Co., Inc., Brevard Court, Charlotte, \$199,193;

Union—15.54 mi. dirt road, Monroe to South Carolina line, C. E. Hill & Son, Asheboro, \$69,645; structures, Cobb & Homewood, Chapel Hill, \$9379; No. 6691;

Avery—36 mi. dirt road, Route 69, Hower-ton & Hageman, Asheville, \$7943; bridge, Hobbs-Peabody Const. Co., Builders Bldg., Charlotte, \$17,388; No. 8080;

Burke—34 mi. conc. approaches to bridge, Silver City, Route 10, Elliott Building Co., Hickory, \$19,072; bridge, E. A. Wood & Co.,

Andrews, \$28,227; No. 8110;

Macon—46 mi. conc. approaches to bridge, Franklin, Route 285, C. Y. Thomason, \$14,650; bridge, L. Riddle & Co., 85 Olney Rd., West Asheville, \$27,033; No. 9670;

Madison—5.97 mi. dirt road, Route 20, Gregory & Chandler, Virgilina, Va., \$78,352.

Tex., Dallas—Dallas County Commrs. Court will call for bids for lighting system on Corinth St. viaduct and for paving Lamar and McKinney viaduct and its west end approach; also for small section of paving on Outer Kessler Blvd. at M. K.-T. crossing.

Tex., Houston—Harris County Commrs. Court passed order to survey McCabe road from intersection of Powell road to intersection of Seabrook South Loop road and referred it to Charles R. Haile, County Engr.

Tex., Graham—State Highway Comsn., Gibb Gilchrist, Engr., Austin, plans building State Highway 120, Newcastle to Throckmorton County line, including bridge over Brazos River; Young County, W. F. Parsley, County Judge, to share cost.

Tex., Houston—City, J. M. Nagle, City Engr., and Harris County have tentative plans for paving Wayside Dr., Telephone road to Harrisburg Blvd.

Tex., Marshall—City opens bids Apr. 14 for conc. curbing, guttering, conc. base surfacing 11,102 sq. yd., \$31,195; W. C. Albright, Engr., Marshall.

Tex., Memphis—Hall County Commrs. Court, A. C. Hoffman, County Judge, opens bids Apr. 25 for paving new highway, Memphis to Lakeview.

Tex., Paint Rock—Concho County Road Dist. No. 1 voted \$285,000 bonds to pave Highways 9 and 4. See Financial News Columns.

Tex., San Antonio—City, I. Ewig, City Engr., opens bids Apr. 6 for paving Howard St.

VIRGINIA—State Dept. of Highways, C. S. Mullen, Ch. Engr., Richmond, opens bids Apr. 14 for 5 roads and 3 bridges in following counties:

Hanover—2.3 mi. conc., north to Ashland, Route 31, 2624 cu. yd. excavation, 2871 lb. rein. steel, 15,030 sq. yd. conc., F260BW;

Loudoun—3.6 mi. macad. surface treatment, Lucketts to 2 mi. south of Limestone Branch, Route 32, 34,278 cu. yd. excavation, 18,955 lb. rein. steel, 37,790 sq. yd. macad., 37,790 sq. yd. surface treatment, bridge over 20 ft. over Limestone Branch, 12,750 lb. rein. steel, F399AB1;

Giles—6 mi. macad. surface treatment, Narrows north, 23 Routes, 10,007 cu. yd. excavation, 7413 sq. yd. macad., 7413 sq. yd. surface treatment;

Fluvanna—130-ft. bridge 7 mi. from Palmyra, Route 32, over Cunningham Creek, 46,365 lb. rein. steel, F493B;

Washington—1.8 mi. macad. surface treatment, 4 mi. east of Bristol to 2.3 mi. east of Bristol, Route 10, 19,254 cu. yd. excavation, 5192 lb. rein. steel, 31,384 sq. yd. macad., F49913;

Buckingham—22 ft. 6 in. arch bridge, 10 mi. from Gladstone, Route 13, over Austin's Run, 8835 lb. rein. steel, F658B;

Lancaster—7.3 mi. soil, surface treatment, Westland to Whitestone, Route 37, 25,801 cu. yd. excavation, 1350 lin. ft. pipe, 3853 lb. rein. steel, 24,150 sq. yd. surface treatment, 24,150 sq. yd. soil, 3000 lin. ft. piling.

Va., Richmond—City, R. Keith Compton, Dir. of Public Works, may lay conc. sidewalks on each side of Hermitage road between Westwood Ave. and corporate limits.

Va., Richmond—City, R. Keith Compton, Dir. of Public Works, has low bids from R. K. Williams, 3101 Lamb Ave., for 3 curbing and guttering projects, and from C. N. Henley, 23 S. Beach St., for fourth project, at \$87,746.

Virginia—U. S. Park Service, Thomas Vint, Ch. Landscape Engr., Washington, reported, let contract in June for 50 mi. conc. highway along top of Blue Ridge Mountain through Shenandoah National Park; 40 ft., \$750,000; entire 70 mi. proposed to cost over \$1,000,000.

WEST VIRGINIA—State Road Comsn., George E. White, Sec., Charleston, opens bids Apr. 14 for 19 roads and 2 bridges, involving \$1,100,000, in following counties:

Greenbrier—1.7 mi. conc., between Lewisburg and Caldwell; 3.76 mi. conc., between Caldwell and White Sulphur;

Preston—9.5 mi. conc., Bruceton Mills to Pennsylvania line; 2.97 mi., Bruceton to Little Sandy; 14,000 ft. wire rope guard rail, between Deep Hollow and Little Sandy;

Lincoln—5.4 mi. conc., West Hamlin to Four-Mile Creek;

Marion—Conoway bridge over Buffalo Creek, conc. substructure;

Lincoln-Logan—25,000 ft. wire rope guard rail, between Logan and Harts;

Braxton—1.73 mi. grading, gravel surfacing, Sutton south on U. S. 19;

Nicholas—2.05 mi. stone top course, Sum-

mersville to Suffy Branch; 11.9 mi. retreat, Fenwick to Craigsville;

Putnam—7.08 mi. surface treatment, between Pocamouth and Red House; 2.2 mi. surface treatment, between Poca and Country Club and Country Club and Kanawha County line;

Mingo-Wyoming—10.08 mi. surface treatment, between Justice and Wyoming County line, and from McDowell line to Mingo line;

Kanawha—2.05 mi. retreat, State Route 25, Charleston west;

Mercer—65,000 ft. wire rope guard rail, between Athens and Princeton and between Princeton and Glenlyn;

Loga—85,000 ft. wire rope guard rail, between Clothier and Blair, and between Steamwell Crossing and Man;

Barbour-Taylor—11,600 ft. wire rope guard rail, between Junior and Belington and between Fetterman and Blueville;

Ohio—1.57 mi. conc., Bethlehem to Elm Grove;

Wetzel—5.25 mi. conc., between Hundred and Sugar Run;

Harrison—substructure and superstructure of Good Hope bridge over West Fork River.

West Virginia—State Road Comsn., Geo. E. White, Sec., Charleston, has low bid from Paul Turman, Barboursville, at \$55,449, for 3.6 mi. grading, draining, National Forest road, Pendleton County, State Route 42. 3-26

W. Va., Parkersburg—City, Burdette Wood-ward, yard, Councilman in charge, City Bldg., soon start work on street improvements with portion of proceeds from \$1,000,000 bond issue recently voted; Leland Merrill, City Engr.; Morris Knowles, Inc., Const. Engr., Westinghouse Bldg., Pittsburgh, Pa.

Contracts Awarded

Alabama—State Highway Dept., Woolsey Fennell, Director, Montgomery, let contract to Wesco Co., Volunteer Life Bldg., Chattanooga, Tenn., at \$225,670, for 12.50 mi. paving, between Huntsville and Athens, Madison and Limestone Counties. 3-19

ARKANSAS—State Highway Comsn., Dwight H. Blackwood, Chmn., Little Rock, let contracts, involving approx. \$560,000, for 4 roads and 16 bridges in following counties:

Clark—4 mi. conc., State Highway 51, Job 3160, J. P. McNulty, 2121 Cherry St., Pine Bluff, \$56,508;

Hempstead—5 bridges, State Highway 67, Job 3170, L. H. Lacey Co., Dallas, Tex., \$56,275;

Washington-Benton—2 bridges, Highways 71 and 68, Job 4162, Walsh & Thomas, Little Rock, \$15,876;

Franklin—3 mi. conc., State Highway 64, Job 4163, Garrett Construction Co., 211½ E. Commercial St., Springfield, Mo., \$93,444;

Stone—bridges over North Slymore Creek, State Highway 5, Job 5133, Lyle & McWilliams, Mena, \$14,638;

Faulkner—4.5 mi. conc., State Highway 5, E. W. Baker & Co., Perrine Bldg., Oklahoma City, \$82,755;

Lonoke—9.5 mi. grading, conc., State Highway 70, Job 6125, J. P. McNulty, \$155,389;

Lawrence—3 small bridges, State Highway 91, Job 40184, Harold Worman, Pittsfield, Ill., \$11,189;

Grant-Dallas—4 bridges, State Highway 167, Job 1131, S. J. Cohen & Co., Blytheville, \$70,744.

GEORGIA—State Highway Bd., J. W. Barnett, Chmn., Atlanta, let contracts for 2 roads and 2 bridge projects, totaling \$351,572, in following counties:

Effingham—4 mi. conc., Statesboro-Savannah road, Espy Paving & Construction Co., 3809 Bull St., Savannah, \$157,881;

Putnam—8 mi. conc., Eatonton-Madison road, Rutherford Construction Co., Lake Wales, Fla., \$182,263;

Coffey—bridge, Douglassville-Ocilla road, J. R. Murphy & Sons, Hapeville, \$7109;

Pulaski—bridge, Hawkinsville-Eastman road, J. R. Murphy & Sons, \$4317. 3-19

KENTUCKY—State Highway Comsn., H. Palmore, Engr., Frankfort, let contracts for 3 roads in following counties:

Cumberland—8 mi. draining, rein. conc. pipe, Brooksville-Albany road, Cumberland Construction Co., Brooksville, \$174,839;

Hancock-Breckenridge—9.5 mi. surfacing, rock asphalt, Louisville-Paducah road, Blair & Franse Const. Co., Lexington, \$156,848;

Todd—11.4 mi. draining, conc. pipe, Russellville-Guthrie road, Frazier & Cocke, Wick liffe, \$60,344. 3-19

Kentucky—State Highway Dept., H. D. Palmore, Engr., Frankfort, let contract to Berry & Kelly, Louisville, at \$38,789 for 4.313 mi. grading, draining, surfacing, Bowling Green-Scottsville road, Warren-Allen Counties, FA 228-AGS.

Mississippi—Atkinson Bros. Co., Pine Bluff, Ark., awarded contract for 12,046 mi., Tut-wiler-Clarksdale road, FAP 212-A, Coahoma County; Clark & McCaa, Jackson, Miss., Gen. Contr.

Md., Baltimore—City, Nathan L. Smith, Highways Engr., let contracts for materials: Sand and gravel, Arundel Corp., Pier 2, Pratt St., \$74,000; cinders, E. T. Foreman, \$22,000; crushed stone, Dist. 1, Woodberry Tap Rock Co., 3922 Hickory Ave., \$5395; Districts 2, 3 and 4, Harry T. Campbell Sons Co., Towson, \$46,545.

OKLAHOMA—State Highway Comsn., Sam R. Hawks, Chmn., Oklahoma City, let contracts for 2 roads:

Osage—23.2 mi. gravel, L. L. Massey, 3206 W. 12th St., Oklahoma City, \$21,852;

Pushmataha—17.7 mi. 18-ft. gravel, Ellis & Lewis, 507 Surety Bldg., Muskogee, \$7843

Tex., Dallas—Dallas County Comms. Court let contract to Dallas Transportation Co., 817 Bourbon St., for paving east end approach to Commerce St. bridge and on 2 lateral roads at west end, which connect bridge with Beckley Ave., at \$23,113; to H. L. Cannady Co., Santa Fe Bldg., at \$6730 for paving west end of Cadiz St. viaduct and for paving. 3-12

Texas—Dexter Construction Co., Lovefield Drive, Dallas, has sub-contract for 14.2 mi. conc. Highway 10. Brown County; General Construction Co., Capps Bldg., Fort Worth, Gen. Contr. 3-12

Tex., Houston—Harris County Comms. Court let contract to Suderman & Young, Inc., Cotton Exch. Bldg., for 4700 tons shell.

Virginia—State Highway Comsn., C. S. Mullen, Ch. Engr., Richmond, has low bids totaling \$543,928 for 10,189,000 gal. bituminous materials for use on highways for period, April to October: Texas Co., 17 Battery Place, New York, on 6,955,000 gal., \$370,611; Atlantic Refining Co., Philadelphia, Pa., 1,974,000 gal., \$109,151; Mexican Petroleum Corp., 120 Broadway, New York, 1,260,000 gal., \$64,164; for applying materials, Sam E. Finley, 292 North Ave., N. W., Atlanta, Ga., 3,187,500 gal., \$23,161; Lansdell Co., Hackensack, N. J., for applying 1,446,000 gal., \$15,393. 3-5

Va., Fort Myer—Washington Quartermaster Depot, 20th and C Sts., N. W., Washington, D. C., let contract to G. H. Shartzer, N. Irwin St., Dayton, Ohio, for grading, draining roads 3 and 5, within Arlington National Cemetery. 3-5

Va., Richmond—City, Dept. of Public Works, A. M. Harris, Ch., Bureau of Streets, let contracts to C. M. Henley, 23 S. Beach St., for vit. brick paving and to Atlantic Bitulithic Co., for Warrenite bitulithic, at \$13.164 and \$41,408, respectively. 3-21

Virginia—State Dept. of Highways, C. S. Mullen, Ch. Engr., Richmond, let contract to G. P. Clay, 900 Blandon Ave., Richmond, at \$47,557, for 1,427 ml. rock asphalt, Route 21, F375D, Senrileo County. 3-26

Sewer Construction

Sewer construction in LAND DEVELOPMENT projects involves the expenditure of large sums of money. Under that classification details of these improvements are reported.

La., Natchitoches—W. H. O'Toole Construction Co., 103 Grayling Lane, Monroe, La., reported, has contract for extension sewer line in Hodges Addition. 3-19

Md., Annapolis—Legislature considering bill for sewerage disposal plant for Annapolis and vicinity; estimated cost \$500,000.

Md., Baltimore—Bd. of Awards receives bids April 8 for sewers, Sanitary Contr. 279.

Md., Towson—Baltimore County Comms. receive bids in July for sewers, Parkdale Section, Sewer Contr. No. 22-S; B. I. Crozier, Engr., Court House.

S. C., Greenville—City, reported, construct sewer main along Park Ave.

Tex., Dallas—City will open bids shortly after May 1 for sewage treatment plant and equipment; Hawley, Freese & Nichols, Const. Engrs., 417 Capps Bldg., Fort Worth.

Tex., Gladewater—See Water Works.

Tex., Houston—City receives bids April 8 for construction of section No. 1 on North Main St. storm sewer system. See Want Section—Bids Asked.

Va., Langley Field, Hampton—J. P. Mahon & Co., Essex Bldg., Norfolk, reported, low bidder at \$12,997 for construction of 2 brick sewerage pumping plants; bids opened March 23. 3-12

Va., Richmond—Dept. of Public Works, Gamble M. Bowers, Asst. Director, opens bids April 10 for construction of Sheppard Relief sewer; cost \$150,000.

Street Railways

La., New Orleans—New Orleans Public Service Co., Inc., reconstructing tracks and wires and improving Ferret St., with own forces.

Tex., Dallas—Dallas Ry. & Terminal Co. shift car tracks on N. Lamar St. between Pacific and McKinney Ave.; cost to be shared by Texas & Pacific Ry. and City.

Telephone Systems

Maryland—Western Electric Co., Point Breeze, Baltimore, furnishing B. T. drop wire, insulated wire and bridge connections for emergency work being undertaken on the Eastern Shore by Chesapeake & Potomac Telephone Co., Baltimore, Md. 2-26

Miss., Laurel—KTSI, G. A. Houseman, 760 Rutherford St., Shreveport, La., applied to Federal Radio Comsn., Washington, for license to cover construction permit for change in equipment; construction permit to move transmitter and studio from Shreveport, La., to 429 Magnolia St., Laurel.

Mo., Kansas City—Southwestern Bell Telephone Co., reported, erect 2 story and basement building Sixty-Third and Holmes Sts.

Mo., St. Louis—Humes-Deal Co., Arcade Bldg., reported, has contract for \$900,000 exchange, S. E. Cor. Eichelberger and January Aves., for Southwestern Bell Telephone Co., Telephone Bldg., to be known as Firestone Exchange; 2 story, 100x130 ft., brick with terra cotta trim and Carthage stone base; fireproof, with complete electrical, heating, plumbing and ventilating system; building scheduled for completion in August; will install dial equipment; project also includes cables connecting new exchange with other exchanges and new long distance terminal at Beaumont and Olive Sts., building of new telephone facilities in St. Louis Hills and Northampton Park; I. R. Timlin, Archt., 1916 Telephone Bldg. 1-22

Okla., Arnett—Standard Telephone Co., James Keffer, Dist. Mgr., reported, rebuild Arnett telephone system; all open wire removed and replaced with cable system.

S. C., Greenville—Examiner Yost, of Federal Radio Comsn., Washington, D. C., recommended that commission grant application of Greenville News-Piedmont Co., for authority to construct a 1000 watt radio broadcasting station.

Tenn., Chattanooga—Van Dyke Texigraph Corp., incorporated; Wm. D. Van Dyke, Dallas Heights.

Tenn., Knoxville—WNOX, Inc., chartered; C. C. Rutherford, 2561 E. Magnolia Ave.; operate station of Sterchi Bros.

Va., Fredericksburg—Empire Broadcast Corp., capital \$15,000, incorporated; Alvin T. Embrey.

Va., Richmond—Chesapeake & Potomac Telephone Co. authorized expenditure of \$471,425 in the state for additions and replacements.

Textile Mills

N. C., Burlington—Sherwood Tapestry Mills, Inc., incorporated; J. Spencer Love, M. B. Smith; leased space in Aurora Mill Bldg., Webbe Ave.; install 168 Jacquard and 150 plain looms; manufacture drapery fabrics and tapestries.

N. C., Ellenboro—Ellenboro Mfg. Co., W. H. Belk, Pres., reported, plans increasing capacity of plant; install dye plant and 28 looms.

N. C., Salisbury—M. M. Rudisill and Carl Rudisill, of Lincolnton and Cherryville, reported, acquired properties of Vance Cotton Mills; will operate; manufacture yarns and cotton goods; improve machinery; will be known as Cartex Mills, Inc., capital \$500,000.

N. C., Spindale—Warp Compressing Machine Co., Worcester, Mass., reported, has contract for magazine warping creel for handling rayon from Spencer Corp.

N. C., Tryon—Soumerai Knitting Co., reported, install 80 additional knitting machines and other machines necessary to finish the products of these machines, including 25 loopers, 6 sewing machines and dye equipment, etc.

Tenn., Kingsport—Pyle Contractors, Kingsport, reported, has contract for brickwork for cellulose acetate yarn mill for Tennessee-Eastman Corp., subsidiary of Eastman Kodak Co., Rochester, N. Y.; Ridge Construction Co., Rochester, N. Y., Gen. Contr. 3-26

Tenn., Knoxville—Knoxville Glove Co., 819 McGhee St., increased capital \$100,000 to \$150,000.

W. Va., Princeton—Lowery G. Bowling, reported, acquired Princeton Hosiery Mill, for company to be organized as Knit-Rite Hosiery Mill Co., capital \$35,000; daily capacity 600 doz. prs. hose.

Water Works

Details of water works improvements in connection with the many LAND DEVELOPMENT operations will be found under that classification.

D. C., Washington—J. B. McCrary Co., Atlanta, Ga., low bidder at \$11,000 for water mains, bids opened March 23.

Fla., Coral Gables, Miami—Town votes April 28 on contract for obtaining water from Miami Water Co., Miami; connect water tank, S. W. Eighth St., with Coral Gable system at cost of \$140,000.

Ky., Louisville—Louisville Water Co., John Chambers, Ch. Engr. and Supt., plans \$1,500,000 extension to water works; 15,000 ft. of 48-in., 15,000 ft. of 60-in. conc. pressure pipe; install 30,000,000 gal. storage reservoir of conc.; bids opened May 15. 3-26

La., Slaughter—Town, L. L. Upton, Sec. Treas., called off election to vote on issuing bonds for water works. 2-19

Md., Cascade—United States Property and Disbursing Officer for Maryland, Annapolis, will soon call for bids for projected extension of water and sewer systems at Camp Albert C. Ritchie; plans and specifications on application. 3-19

Md., Clear Spring—City petitioned Legislature for permission to vote on \$45,000 water system bonds.

Md., Cumberland—City will probably have plans complete by April 15th and open bids May 1st for \$900,000 secondary dam to be built at headquarters of Evitts Creek to treble water supply; about 60,000 bbls. of cement and 24,000 tons of sand will be required; J. E. Greiner Co., Engrs., 1201 St. Paul St., Baltimore, Md. 3-26

Md., Brunswick—Central Foundry Co., Comer Bldg., Birmingham, Ala., reported, has contract for pipe and fittings.

Tenn., Clarksville—State Legislature passed bill authorizing water works bonds.

Tex., Corpus Christi—Louis C. Hill, Los Angeles, Calif., reported, retained by city to approve of plans for reconstruction of La-Fruita Dam on Nueces River; specifications for rebuilding prepared by Henry E. Elrod, 1925 Wentworth St., and Robert Cummins, Bankers Mortgage Bldg., Const. Engrs., Houston. 2-5

Tex., Fort Worth—Frank Parrott, First Natl. Bank Bldg., Dallas, and R. F. Ball Construction Co., Electric Bldg. Annex, have contract on joint bid of \$395,000 for filtration plant addition; work consists of brick and rein. conc. 1 story buildings as follows: Administration building, 55x69 ft.; new sedimentation building, 310x138 ft.; filter building, 39x107 ft.; chemical building, 55x69 ft.; wash water tank; steel, brick covered tank; Hawley, Freese & Nichols, 417 Capps Bldg., Const. Engrs.

Tex., Gladewater—Chamber of Commerce, L. M. Hewitt, Sec., advises city will vote April 18th on incorporation; engineers now working on plans for water and sewer system.

Va., Yorktown—Oliver C. Taylor, Engr. in Charge, Colonial National Monument, receives bids April 6 for well and installation of turbine pump. See Want Section—Bids Asked.

W. Va., Parkersburg—City voted sewer, water and park bonds; improvements to streets and city parks under direction of Burdette Woodyard, City Bldg.; expenditures for water and sewers under direction of George Huber, City Bldg.; Leland Merrill, City Engr.; Morris Knowles, Inc., Westinghouse Bldg., Pittsburgh, Pa., Const. Engr. on all projects; construction to begin soon on great portion of work. 1-15

Woodworking Plants

N. C., Winston-Salem—Winston-Salem Chair Co., Henry H. Barnes, Pres., S. Clairmont Ave., reported, construct \$25,000 addition to plant; brick and steel; Boyles Building Co., Contr.

Tex., Brownsville—Tuggle Sash & Door Co., capital \$30,000, incorporated; Keith Tuggle, C. R. Tuggle.

FIRE DAMAGE

Ala., Cottonwood—Lumber mill, 25 employees' houses and store building owned by Rambo Lumber Mill; loss \$220,000.

Ala., Oneonta—Blount County High School; loss \$75,000.

Ala., Mobile—Warehouse section of Turner Terminal Co.

Ark., Pine Bluff—Arkansas Power & Light Co.'s airplane and hangar at Toney Field; loss \$10,000.

Fla., Panama City—Mill of St. Andrews Bay Lumber Co.; loss \$75,000.

Ga., Darien—McIntosh County court house. Address Bd. of County Commrs.

Ky., Vicco—Mountain Hotel owned by J. I. Hughes; John Watts' warehouse and 4 dwellings; loss \$15,000.

La., Monroe—Nash Bldg. on Hayne St., occupied by Fairly Bros. and D. B. Harrington; loss \$50,000.

Md., Essex—Jas. Hartley's residence.

Md., Poolesville—Garage of Harry Kohl-hoss & Sons; loss \$10,000.

Miss., Gulfport—H. B. Nunn's residence, W. Beach St.; loss \$6,000; J. G. Donnelly's apartment, Finley St.; loss \$2,000.

Mo., Portageville—High School; loss \$65,000; address Bd. of Education.

N. C., Dudley—High school building; address Wayne County Bd. of Education, Goldsboro.

N. C., Lumberton—L. C. Townsend's store, building owned by Dr. J. W. Griffith, Greensboro; loss \$20,000.

Okla., Tulsa—Rosser-Moon Furniture Co.'s store, 419 S. Frankfort Ave.

S. C., Greenville—J. T. Childs' residence, Old Spartanburg Rd. near Greenville.

S. C., Saluda—D. T. Mitchell's residence.

Tenn., Sparta—Warehouse of Gulf Refining Co., in South Sparta; loss \$10,000.

Tex., El Paso—Rathburn Soap Co.'s plant; loss \$25,000.

Va., Independence—Hotel owned by Dr. H. T. Smith, operated by Mrs. Andrews; Dr. Smith's office adjoining hotel; W. L. Wright's ice cream parlor, with barber shop and restaurant above, in building owned by J. M. and J. T. Parsons.

Va., Gate City—Buildings of Scott County Motor Co., Morristown Produce Co., Gate City Hardware Co., Poe Produce Co. and Broad-water Feed Co.; loss \$50,000.

Va., Oceana—High school; loss \$25,000; Robert J. Johnson, Supt., Princess Anne County School Bd.

Va., Richmond—Herman West Filling Station on Morris St.

Va., Vienna—Fairfax County Farmers Feed Service; loss \$30,000.

W. Va., Elk Garden—Methodist Episcopal Church, Sulphur, near Elk Garden.

W. Va., Louise—Building of Bertha Consumers Co., Pittsburgh, Pa., E. T. Lilly, Supt., Louise; loss \$30,000.

W. Va., Mullens—Hatcher Bldg., occupied by boarding house, operated by Mrs. Jay Wellman and Mullens Dollar Store; loss \$10,000.

W. Va., Weirton—Building occupied by Weirton Daily Times.

Mo., Houston—Texas County, John H. Stites, Judge, votes April 4 on \$40,000 bonds to replace burned court house. 1-1

Tenn., Knoxville—City, Rex Wallace, Welfare Director, erect \$25,000 grandstand, Caswell Park. 1-1

Tex., San Antonio—City, Jas. Simpson, City Clk., receives bids April 13 to remodel old market house for community center; fireproof; replace floors, roof with conc. constr., tile roof, maple floors, patent plaster, \$100,000; Atlee B. & Robt. M. Ayres, Archts., Smith-Young Tower; W. E. Simpson & Co., Engrs., Milam Bldg. 2-19

Va., Richmond—Department of Public Safety considers erecting fire station, West End.

W. Va., Parkersburg—City voted bonds for improvements to city bldg. and city hospital; work under direction of Councilman Louis N. Pickens, City Bldg.; Leland Merrill, City Engr.; Morris Knowles, Inc., Westinghouse Bldg., Pittsburgh, Pa., Consult. Engrs. 1-8

Dwellings

Fla., Delray Beach—Albert E. Van Dusion, Philadelphia, Pa., plans \$250,000 residence, etc., near Delray Beach; 8 baths, 12 servants' rooms, garages, stables; Carlos B. Schoeppl, Archt., 528 Lincoln Rd., Miami Beach, Fla.; plans complete about May 1.

Fla., Miami—W. A. Jordan has permit for frame stucco residence, Auburndale Tamiami Trail Sub-division.

Fla., Tallahassee—Mrs. Jean Thompson remodel and add 4 rooms to residence; brick veneer, 1 story, 40x36 ft., oak floors, asbestos roof; Alvin R. Moore, Archt., Centennial Bldg.

Fla., Winter Park—Dr. E. S. Shippen, Boston, Mass., erect residence after plans by J. C. Gamble Rogers, Archt., Winter Park. 3-26

Fla., Winter Park—Albert M. Breneman, Lancaster, Pa., plans Mediterranean type residence.

Fla., Winter Park—Geo. F. West, Portland, Maine, erect \$35,000 to \$40,000 Mediterranean type residence, Georgia Ave.; 14 rooms.

Fla., Winter Park—Alfred P. Webster, Moline, Ill., erect \$20,000 to \$25,000 residence.

Ga., Dublin—W. R. Warden plans \$15,000 residence; brick, hardwood and tile floors, comp. or slate roof.

Ga., Macon—North Winship, American Consul General, Copenhagen, Denmark, purchased 100 acres adjoining another 100-acre tract already owned; plans to develop estate over period of several years, including erection of residence.

Ga., Ocilla—H. L. Rogers erect \$10,000 residence; brick veneer, 2 stories, hardwood and tile floors.

La., New Orleans—R. J. Barry, 1125 Independence St., erect residence, Fairway Drive; work probably start in October.

Md., Baltimore—Bernard F. Owens, Archt., 20 E. Lexington St., drawing plans for rectory; brick, 2½ stories; plans probably ready in about 3 weeks.

Md., Towson—Baltimore—Edwin Warwick, 505 Park Ave., has low bid from Harry McLeod, Halethorpe, for residence; Cyril H. Hebrank, Archt., 3 E. Lexington St., Baltimore. 3-12

Miss., Biloxi—Presbyterian Church, F. H. Kimbrough, member, Bldg. Comm., plans to rebuild manse.

N. C., Greensboro—Proximity Manufacturing Co., plans to start work about April 1 on about 1250 bathroom additions to mill dwellings; lumber purchased; install plumbing connections; later install fixtures; Gilbert C. White Co., Consult. Engr., 406½ W. Main St., Durham, N. C. 2-19

N. C., Welcome—H. P. Beeker, Woodleaf, erect residence.

Okla., Oklahoma City—John A. Brown erect Spanish type residence, Nichols Hills Country Club Addition; stucco, red tile roof; Atlee B. & Robt. M. Ayres, Archts., Smith-Young Tower, San Antonio, Tex.

S. C., Charleston—Mrs. Albert Goodwyn, Augusta, Ga., erect brick residence; 2 stories, 56x40 ft., wood joists, rein. conc., 2 baths, slate or tile roof; F. Arthur Hazard, Archt., 232 Masonic Bldg., Augusta; bids in.

S. C., Greenville—Wm. Lowndes, 18 Williams St., erect residence, Augusta Rd. section; work start in few months.

S. C., Greenville—Pressley Smith erect residence, Augusta Rd. section; work start in few months.

S. C., Greenville—Major G. Heyward Mahon, Jr., 7 N. Main St., erect residence, Augusta Rd. section; work start in few months.

Tex., Houston—River Oaks Corp., River Oaks Bldg., has permit for \$20,000 dwelling, 2109 Inwood St.; brick veneer, 9 rooms.

BUILDING NEWS

BUILDINGS PROPOSED

Association and Fraternal

Tex., Fort Worth—Following contractors estimating on \$1,000,000 Masonic Temple superstructure, bids April 7 by W. G. Clarkson & Co., Archts., First Natl. Bank Bldg., Fort Worth: General—Butcher & Sweeney, 808½ Taylor St.; Wm. H. Southwell, 605 E. Second St.; E. S. Newcome, Dan Waggoner Bldg.; Harry B. Friedman, Sinclair Bldg.; Thos. Byrne, Fort Worth Natl. Bank Bldg.; Jas. T. Taylor Construction Co., Aviation Bldg.; H. F. Ball Construction Co., 806½ Taylor St.; J. S. Harrison, care G. C. Ramsey, 3413 Rogers St., all Fort Worth; Bellows-MacLay Construction Co., Construction Bldg., Dallas, Tex.; Swenson Construction Co., Shubert Theatre Bldg., Kansas City, Mo.; Mechanical work—Dixie Heating & Ventilating Co., 109 Fannin St., Houston; Martyn Bros., Inc., 911 Camp St., Dallas, Tex.; Beach Plumbing & Heating Co., 300 S. Main St.; O. J. Butts Plumbing and Heating Contr., 915 S. Main St.; Montrief & Montrief, 307 W. 13th St.; J. W. Morris & Co., 105 S. Jennings St.; S. P. Osburn, 1900 Fifth Ave., all Fort Worth; Electrical work—A. T. Buck Co., Houston; Eugene Ashe Electric Co., 505 Jones St.; Wortham Electric Co., 117 E. Seventh St.; Goolsby Electric Co., 1022 Monroe St.; Shotts Electric Co., 905 Throckmorton St.; Hensley Electric Co., 2245 N. Main St., all Fort Worth. 3-19

Va., Roanoke—Roanoke Lodge No. 197, B. P. O. Elks, approved erection of 6-story clubhouse; C. W. & Geo. L. Rapp, Archts.-Engrs., Paramount Bldg., New York; Eubank & Caldwell, Resident Archts., Boxley Bldg. See Buildings Proposed—Theaters.

Bank and Office

Mo., Springfield—R. H. Enoch Construction Co., 714 Oakwood Blvd., Chicago, Ill., W. H. Shephard, Agt., 638 Landers Bldg., Springfield, plans \$1,250,000 office bldg.; brick, stone and rein. conc., 192 rooms. 1-22

Mo., Springfield—Lampe-Birbenback Co., 219 N. Jefferson St., plans 9-story bldg.; first 4 floors for garage space, remainder for offices.

N. C., Hickory—Abernethy Estate considers remodeling Abernethy Bldg.

Churches

Ga., Atlanta—Morningside Baptist Church, Rev. G. J. Davis, Pastor, 1423 Glore Place,

N. E., erect frame addition; 1 story and basement, about 65x70 ft., wood floors, comp. shingle roof, hot air heat; Jess Wilhoit, Archt., Mtg. Guar. Bldg.

Ga., Atlanta—Wesley Memorial Church, Dr. S. B. Williams, remodel interior of bldg., Ivy and Auburn Ave.; \$50,000.

Md., Colgate—St. Peters E. L. Church, Eastern Ave., extended, receives bids April 9 at office John Freund, Archt., 1307 St. Paul St., Baltimore, for stone and wood bldg.; 1 story, 47x7 ft., wood and tile floors, stone foundation; following contractors estimating: Adam Kratz, 118 S. Carrollton Ave.; Thos. Hicks & Sons, 106 W. Madison St.; E. Eyring & Sons, 809 S. Conklin St.; Chas. Mohr, 333 St. Paul Place; E. G. Turner, 2133 Maryland Ave.; Avon Construction Co., 218 E. Lexington St.; C. W. Littleton & Sons, 4313 Liberty Heights Ave.; Ritter & Lambert, 511 Hilltop Park, all Baltimore. 4-3-30

N. C., Lenoir—St. James P. E. Church, Rev. B. M. Lackey, Pastor, plans \$25,000 Sunday school; drawing preliminary plans.

N. C., Raleigh—Greek Orthodox Church plans brick bldg., S. Person St.

Okla., Oklahoma City—Exchange Ave. Baptist Church, Rev. Hale V. Davis, Pastor, 1833 Linden St., plans to start work early in Fall on \$400,000 church; fireproof, two bldgs. 65x100 ft., one 75x100 ft., brick, conc. foundations. See Want Section—Building Material and Equipment. 3-19

City and County

Ark-Tex., Texarkana—Miller County (Ark.) Jail Comsn., F. E. Pharr, member, receives bids May 5 for fireproof jail; rein. conc., 5 stories, face brick, stone, terra cotta, elevators; \$150,000; Witt, Seibert & Halsey, Archts., Texark. Natl. Bk. Bldg. 11-20

La., Shreveport—Following contractors estimating on fireproof jail, bids April 9 by Caddo Parish Police Jury: General—K. C. Wilson, Slattery Bldg.; Welch & McLain, 940 Elmwood St.; W. Murray Werner, Commercial Bank Bldg.; McMichael Construction Co., City Bank Bldg., all Shreveport; Jail Equipment—Beard Corp., St. Vincent Ave., Shreveport; Fries & Son Steel Construction & Engineering Co., Covington, Ky.; Pauly Jail Building Co., 2215 De Kalb St., St. Louis, Mo.; Southern Prison Co., 4500 Presa St., San Antonio, Tex.; Edw. F. Neild, Archt., City Natl. Bank Bldg., Shreveport. 3-12

Tex., Houston—F. E. Graham has permit for \$10,000 residence, 3257 Ella Lee Lane; brick veneer, 9 rooms.

Tex., San Antonio—Mrs. Alva R. Howard, Tampico, Mexico, plans residence, W. Gramercy Place and Shearer Blvd.; stone, 1 story.

Government and State

Ala., Decatur—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., opens bids April 23 for remodeling and enlarging post office; drawings from office Supvg. Archt.

Ala., Maxwell Field, Montgomery—Constructing Quartermaster, Maxwell Field, Capt. M. A. McFadden, receives revised bids April 23 for 1 hospital and detachment barracks, 1 fire station and guard house and 1 post exchange; plans from Constr. Q. M.; following contractors estimating: English Construction Co., 1315 H St., N. W.; Crane Co., 1225 I St., N. W., both Washington, D. C.; Rosen & Fischel, Inc., 11 S. LaSalle St., Chicago, Ill.; Kewanee Boiler Corp., Kewanee, Ill.; Levene Electric Co., 326 N. Ave., New Rochelle, N. Y.; G. A. Hanson Co., Inc., 215 Madison St., Tampa, Fla.; Cut Stone Association of Indiana, Bloomington, Ind.; A. S. Bacon & Sons, Inc., Schwarz Ave., Savannah, Ga.; Smith-Pew Construction Co., 435 Irwin St.; Wagar Construction Co., Norris Bldg.; Grahn Construction Co., Red Rock Bldg., all Atlanta, Ga.; Perry & McDonald, 317 Dexter Ave.; Samford Bros., Inc., 301 Washington Ave., both Montgomery, Ala.; Batson-Cook Co., West Point, Ga.; H. H. Brown, Dothan, Ala.; E. C. Coston Construction Co., 3019 Sixth Ave., South, Birmingham, Ala.; Decatur Iron & Steel Co., Decatur, Ala.; McPhillips Manufacturing Co., ft. of Lawrence St., Mobile, Ala.; Acme Building Supply Co., Eighth Ave., Meridian, Miss.; Cole Manufacturing Co., 789 S. Fourth St., Memphis, Tenn. 3-19

Ala., Montgomery—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., selected Frank Lockwood, Archt., 119 Adams Ave., Montgomery, to draw plans for \$845,000 post office. 1-22

D. C., Washington—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., has low bid at \$12,750 from Leon A. Harris, Chicago, Ill., to clear site of \$10,000,000 Department of Justice bldg.; Zant-zinger, Borie & Medary, Archts., Otis Bldg.; Isaac Hathaway Francis, Heating-Plumbing-Wiring Engr., 1520 Locust St., both Philadelphia, Pa.; Gravel & Duncan Lewis, Struct. Engrs., Tower Bldg., Washington. 3-19

Ga., Fort Benning—Additional prospective estimators on 5 field and 51 company officers' quarters, bids April 7 by Constructing Quartermaster: General—Rolph Sollitt & Sons Construction Co., South Bend, Ind.; Decatur Iron & Steel Co., Decatur, Ala.; Adolph Kahles, Davenport, Iowa; Shapleigh Hardware Co., 315 Washington St., St. Louis, Mo.; Anderson Plumbing Co., Montgomery, Ala.; Frank P. Boyd, Columbus, Ind.; Levene Electric Co., New Rochelle, N. Y.; Benson Plumbing & Heating Co., Auburn, Ala.; H. W. Oatis, 865 N. Highland Ave., N. E., Atlanta, Ga. 3-26

Ga., West Point—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., selected site for post office.

La., Barksdale Field, Shreveport—Additional prospective estimators on 3 enlisted men's barracks, bids April 9 by Constructing Quartermaster, Barksdale Field: Shapleigh Hardware Co., Fourth St. and Washington Ave., St. Louis, Mo.; Carrier Engineering Corp., 2706 Commerce St., Dallas, Tex.; Theobald Jansen Electric Co., 613 W. Main St., Louisville, Ky.; American Foundation, Inc., Mill St., Cincinnati, O.; Robinson-Slagle Lumber Co., Inc., 1401 Abbie St., Shreveport. 3-26

La., Barksdale Field, Shreveport—Constructing Quartermaster, Capt. Geo. E. Lamb, has low bid at \$330,500 from J. H. Reddick, Kennedy Bldg., Fort Smith, Ark., for 30 double non-commissioned officers' quarters. Barksdale Field. 3-26

La., Barksdale Field, Shreveport—Additional prospective estimators on 40 officers' quarters, bids April 10 by Constructing Quartermaster, Barksdale Field: R. F. Ball Construction Co., 511 Elec. Bldg., Annex: L. C. Maples Construction Co., 3614 Ave. H, both Fort Worth, Tex.; American Heating & Plumbing Co., Inc., 829 Baronne St.; Woodward, Wight & Co., Ltd., 451 Howard Ave., both New Orleans, La.; Brown-Roberts, Second and Johnston Sts.; F. A. Flynn, P. O. Box 372, both Alexandria, La.; Murch Bros. Construction Co., Ry. Exch. Bldg.; Laclede Steel Co., Arcade Bldg., both St. Louis, Mo.; Decatur Iron & Steel Co., Decatur, Ala.; Houseman Sheet Metal Works, 1549 Jordan St., Shreveport; Murphy Ponnard, P. O. Box 422, Columbus, Ga.; C. Wallace Plumbing Co., Inc., 2212 Summer St., Dallas, Tex.;

M. H. Sobel Co., First Natl. Bk. Bldg., Detroit, Mich.; Wentzel & Wood, P. O. Box 812, Sherman, Tex.; Wagar Construction Co., 416-17 Norris Bldg., Atlanta, Ga.; Wm. Benton, Mt. Clemens, Mich.; Tobin Plastering Co., 506 Bldrs. Exch. Bldg., San Antonio. 3-26

Md., Easton—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., plans post office.

Md., Fort Hoyle—Constructing Quartermaster has low bid at \$21,690 from Robt. J. Hopkins, Baltimore, for 3 non-commissioned officers' quarters. 3-19

Md., Fort George G. Meade—Constructing Quartermaster receiving bids, date not determined, for rehabilitation of elect. line system, constr. of bath house at swimming pool No. 2, constr. of temporary mess halls and temporary constr. project in R. O. T. C. area.

Md., Solomons—State Conservation Comsn., Swenson Earle, Commr., Munsey Bldg., Baltimore, plans to erect and equip laboratory, Solomons Island; \$40,000 available.

N. C., Wadesboro—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., opens bids April 17 for site for \$95,000 post office.

Tenn., Old Hickory—DuPont Rayon Co. erect \$85,000 bldg. and give to Government for post office.

Tex., Fort Sam Houston, San Antonio—Constructing Quartermaster, Fort Sam Houston, opens bids April 14 (extended date), for 3 field officers' quarters and 14 company officers' quarters. 3-12

Tex., Lubbock—Additional prospective estimators on \$350,000 post office, bids April 10 by Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C.: General—Wm. MacDonald Construction Co., St. Louis, Mo.; D. N. Leaverton, Lubbock; Rogers & O'Rourke, 506 Construction Industries Bldg.; A. J. Rife Construction Co., 1913 N. Harwood St.; Christy-Dolph Construction Co., Construction Bldg., all Dallas, Tex.; English Construction Co., Washington; Eastergard & Ballard, Dodge City, Kan.; Jas. T. Taylor, Aviation Bldg., Fort Worth; R. F. Bell Construction Co., 511 Electric Bldg., Annex, both Fort Worth, Tex.; McMillen & Shelton, Broadway Tower, Enid, Okla.; John Largura & Co., 3672 Adams St., Gary, Ind.; A. H. Brodkey Co., 429 Saunderson-Kennedy Bldg., Omaha, Neb.; Anderson & Co., 37 W. Van Buren St.; Fleisher Engineering & Construction Co., Wrigley Bldg., both Chicago, Ill.; Charles Weitz' Sons, 713 Mulberry St., Des Moines, Iowa; Ring Construction Co., Minneapolis, Minn.; Robt. E. McKee, 1900 Texas St., El Paso, Tex.; Rucks-Brandt Construction Co., Thompson Bldg., Tulsa, Okla.; Elevators—Shepard Elevator Co., 2425 Colerain St., Cincinnati, O. 3-26

Tex., Pampa—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., opens bids April 10 for site for post office; bldg. brick, struct. clay tile, struct. steel and rein. conc., \$180,000.

Tex., Randolph Field—Constructing Quartermaster has low bid at \$39,704 from Messinger & Dalton, Pittsburg, Kan., for gymnasium. 2-26

Tex., Randolph Field—Following contractors estimating on School of Aviation Medicine, bids April 9 by Constructing Quartermaster: S. & W. Construction Co., Shrine Bldg., Memphis, Tenn.; Bellows-Maclay Construction Co., Construction Bldg., Dallas, Tex.; Moeller & Weibacher, 1211 Willow St.; Dielmann Construction Co., 306 E. Commerce St.; Sumner-Sollitt Co., Natl. Bank of Commerce Bldg., all San Antonio, Tex.; Kenneth L. Colborn, Pasadena, Calif.; Robt. E. McKee, 1916 Texas St., El Paso, Tex.; Walter Sipple, New Braunfels, Tex.; Murch Bros. Construction Co., Rwy. Exch. Bldg., St. Louis, Mo.; Geo. E. Wieland, 106 E. 25th St., Austin, Tex.; Messenger & Dalton, Pittsburg, Kan. 3-19

Tex., Randolph Field—Following contractors estimating on officers' apartment bldg., bids April 15 by Constructing Quartermaster: S. & W. Construction Co., Shrine Bldg., Memphis, Tenn.; Bellows-Maclay Construction Co., Construction Bldg., Dallas, Tex.; Robt. E. McKee, 1916 Texas St., El Paso, Dielmann Construction Co., 306 E. Commerce St., San Antonio, Tex.; George E. Wieland, 106 E. 25th St., Austin, Tex.; Messenger & Dalton, Pittsburg, Kan. 3-26

Tex., Stephenville—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., opens bids April 16 for site, about 27,000 sq. ft., for post office.

Va., Arlington National Cemetery—Constructing Quartermaster's Office, Room 2335 Munitions Bldg., Washington, D. C., opens bids April 4 for stable, Arlington National Cemetery; information on application.

Va., Fredericksburg—War Dept., Fredericksburg and Spottsylvania County Battle-field Memorial Comsn., Major Arthur E. Wilbourn, Member and Secretary, 1011 Princess Anne St., Fredericksburg, plans to erect as soon as funds are available headquarters office bldg. with library and relic rooms attached, 4 comfort stations and 4 sets of caretakers quarters for above memorial parks; work probably not start for 2 years.

Va., Langley Field, Hampton—Constructing Quartermaster has low bid at \$348,870 from M. H. Sobel Co., Book Tower, Detroit, Mich., for 16 double company officers' quarters; \$21,800 for each additional building. 3-12

Va., Richmond—Virginia State Library, H. R. McIlwaine, State Librarian, has offer of \$100,000 from Judge Barton Payne towards erection of library bldg.; project in initial stages only.

Hospitals, Sanitariums, Etc.

Ark., Benton—Arkansas Construction Comsn., Jos. M. Hill, Chmn., Little Rock, reported, has low bid at \$304,500 from Wm. Peterson, Donaghey Bldg., Little Rock, for second unit of Farm Colony at \$3,250,000 State Hospital for Nervous Diseases, Saline County; Mann, Wanger & King, Archts., 1316 Donaghey Bldg., Little Rock. 3-5

D. C., Washington—Department of Interior, Jos. M. Dixon, First Asst. Sec., receives bids until April 30 for Tuberculosis Bldg. No. 1, St. Elizabeths Hospital, including roads, walks, grading and drainage; \$240,000; work includes excavating, rein. conc. constr., hollow tile, brick work, cut stone work, marble work, floor and wall tile, compressed asphalt tile, terrazzo floors, linoleum floors, iron work, steel sash, steel stairs, tile and metal roofing, roof ventilators, metal lathing, metal weatherstrips, insect screens, window shades, elect. elevator, outside service connections; separate bids for elect. elevator; drawings from Constr. Div., U. S. Veterans Bureau, Room 764, Arlington Bldg. 3-19

Okla., Shawnee—Interior Dept., Commr. of Indian Affairs, C. J. Rhoades, Washington, D. C., receives bids in duplicate until April 18 for infirmary bldg., Shawnee Sanatorium; drawings from Commissioner.

Tenn., Knoxville—City Council, Geo. R. Dempster, City Mgr., appropriated \$25,000 for hospital unit for negroes adjoining Knoxville General Hospital; 75 beds; Clem H. Meyer, Archt.; work start at once.

Va., Fort Humphreys—Constructing Quartermaster receives bids April 23 for hospital.

W. Va., Parkersburg—City voted bonds to improve city hospital. See City and County.

Hotels and Apartments

Tex., Longview—Gregg Hotel, Inc., R. G. Trippett, Pres., Securities and Investment Co., Slatery Bldg., Shreveport, La., and associates acquired Gregg Hotel and erect \$375,000, 100-room hotel adjoining; three top floors for 100 offices; Edw. F. Nield, Archt., City Bank Bldg., Shreveport.

Miscellaneous

Ala., Verbena—Booker Washington Assn., W. R. Cowart, Pres., Montgomery, soon ready for bids for \$18,000, one-story and basement, 40x86 ft., brick veneer orphanage; two wings, 20x20 ft., comp. roof, steam heat; Richard M. Ryan, Archt., Bell Bldg., Montgomery. 10-23

Ark., Pine Bluff—Catholic Church, Bishop John R. Morris, purchased 582-acre plantation on Bayou Bartholomew for orphanage for negro children.

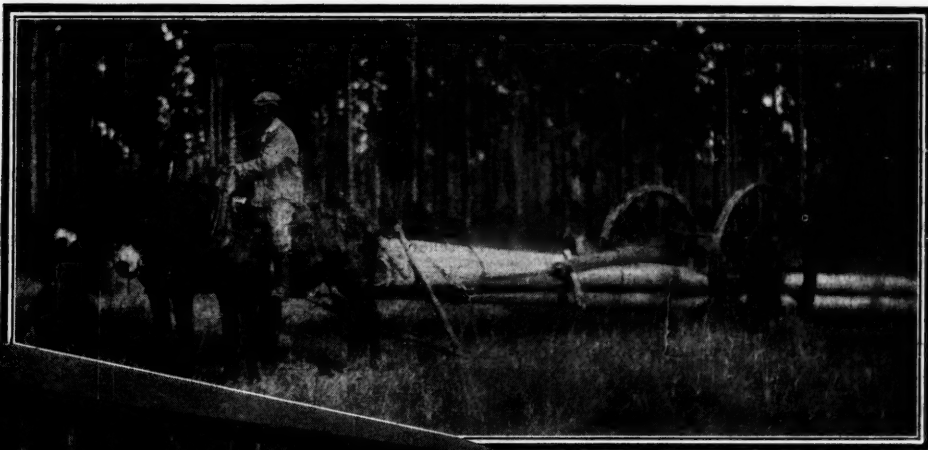
Fla., Naples—A. C. Joslin has low bid from R. G. Witters Co., 1745 S. W. Sixth St., Miami, for \$26,000, one-story, frame and stucco clubhouse.

Md., Baltimore—St. Joseph Passionist Monastery, 3800 Frederick Ave., has plans by Hugh Kavanagh, 913 N. Calvert St., for one-story, 80x200 ft., stone building, Monastery Ave., Irvington.

Md., Salisbury—J. Costen Goslee, F. F. Allen, and others having plans prepared by J. Wilford Johnson for granite hall.

Miss., Columbia—Lampton Co. ready for bids about April 15 for \$12,000, 2-story, brick veneer funeral home; Juan G. Landry, Archt., Conn Bldg., Hattiesburg.

N. C., Asheville—Asheville Junior League Baby Home has plans by Wm. W. Dodge, Jr., Biltmore Forest, for home on Merrimon Ave.



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LOUISVILLE — KENTUCKY

Schools

Ala., Oneonta—Blount County Bd. of Education plans rebuilding high school noted burned at loss \$75,000.

Ala., Scottsboro—Jackson County Bd. of Supervisors receives bids April 6 for brick school for Orange-Lake Consolidated School Dist. near Orange Grove.

Ark., Fayetteville—University of Arkansas. Dr. J. C. Futrell, Pres., selected Wittenberg & Deloney, Home Insurance Bldg., Little Rock, to prepare plans for science building and Haralson & Nelson, Merchants Bank Bldg., Fort Smith, as architects for library; \$725,000 available; Jamieson & Spear, Const. Archts., Arcade Bldg., St. Louis, Mo. 3-5

Ark., Little Rock—University of Arkansas. Dr. J. C. Futrell, Pres., Fayetteville, selected H. Ray Burke, Wallace Bldg., Little Rock, to prepare plans for building at Medical School for laboratories and classrooms; Jamieson & Spear, Const. Archt., Arcade Bldg., St. Louis, Mo. 3-5

D. C., Washington—National Training School for Boys, Clyde D. Jones, Supt., reported, having plans prepared and ready for bids about May 1 for \$200,000, one- and two-story and basement, brick, industrial shops and cottage, Bladensburg Road and S. Dakota Ave., N. E.; conc. floors, industrial shop equipment.

D. C., Washington—District Commrs., Roland M. Brennan, Ch., Engr. Dept., Dist. Bldg., receive bids April 8 for automobile repair shop at Columbia Jr. High School, O St., N. W., between Sixth and Seventh Sts.; contents, 99,334 cu. ft.; plans and specifications at Room 427, Dist. Bldg.

D. C., Washington—District Commrs., Roland M. Brennan, Ch., Engr. Dept., Dist. Bldg., receive bids April 9 for constructing athletic field, including field house near Western High School, 38th, 39th, River Road and S St., N. W.; plans and specifications at Room 427, Dist. Bldg.

Fla., Goulds—Bd. of Public Instruction, James Mitchell, Chmn., Miami, postponed indefinitely erection of \$16,000 school near Goulds; plans by Archt. for Julius Rosenwald Foundation, Chicago. 3-26

Fla., Miami—Following contractors estimating on \$30,000, 2-story, rein. conc., conc. block and stucco, 6-classroom school in Morningside on N. E. Fifth Ave. between 66th and 67th Sts., bids April 15 by Dade County Bd. of Public Instruction, James J. Marshall, Chmn.: Continental Construction Co., Exchange Bldg.; Gunn & Goll, Inc., 69 N. E. 36th St.; M. R. Harrison Construction Co., N. E. 45th St.; Fred Howland, 1600 N. W. 14th St.; J. Y. Gooch & Co., Bedford Bldg.; John B. Orr, Inc., 147 N. E. Sixth St.; George W. Langford, McAllister Hotel Bldg.; Chas. B. Colby & Son, 3081 Coconut Grove; C. A. Taylor, 227 N. W. 22nd Lane; T. H. Farrington, Inc., Security Bldg.; Le Roy S. Edwards, 563 N. E. 67th St., all Miami; Wm. S. Green Co., 1237 Twentieth St., Miami Beach; Klehnel & Elliott, Archts., Seybold Bldg. 2-19

Ga., Atlanta—Fulton County plans vote on \$500,000 bonds for North Side School addition, Russell High School addition and for 6 grammar schools; Jere Wells, Supt. of Education, Court House. 1-29

Ga., Dalton—School Bd., W. C. McGhee, Sec., plans \$30,000 school.

Ga., Thomasville—Bd. of Education soon have plans completed by Lockwood & Poundstone, Marietta Bldg., Atlanta, for \$25,000, one-story, brick veneer school; comp. roof, wood floors.

Ga., Woodland—Talbot County Bd. of Education, J. L. Taylor, Supt., receives bids April 6 for \$30,000, one-story and basement, brick veneer school; cast stone trim, comp. roof, wood floors, 155x42 ft., with 42x43 ft. wing; 8 classrooms, auditorium to seat 375 people; Daniel & Beutell, Ga. Savings Bk. Bldg., Atlanta; following contractors estimating: Gates Bros., College Park; L. T. Cobb, Decatur; Snellings Lumber Co., Phenix City, Ala.; Newton Coal & Lumber Co., Griffin; G. T. Wells, Hapeville; W. T. Collier, 25 Chappell Road, N. W., Atlanta; Ben H. Butts, Thomaston. 2-26

Ky., Louisville—Bd. of Education purchased 2.8-acre site adjoining Kosair Crippled Children's Hospital for school for handicapped children.

La., Hahnville—Following contractors estimating on proposed seven brick schools for white and six frame school for colored, recently noted, bids April 21 by St. Charles Parish School Bd.: J. A. Petty & Sons, Inc., Audubon Bldg.; Wm. Wallace, Pere Marquette Bldg., both New Orleans; Anzalone Construction & Supply Co., Independence; James Petit, Box 116, Westwego; E. E. Rabalais & Son, Bunkie; Wm. R. Burk, Archt., Balter Bldg., New Orleans. 3-26

La., New Orleans—Orleans Parish School Bd., A. J. Tete, Sec., receives bids April 21 for 3-story, 90x170 ft., brick, stone trim Henry W. Allen Elementary Public School; 16 rooms, comp. roof, wood floors, accommodate 700 pupils; plans at office A. E. Christy, Supvg. Archt. for School Bd. 3-12

Md., Baltimore—Bd. of Public Improvement Comsn., H. J. Leimbach, Supvg. Engr., City Hall, has low bid at \$102,924 from Lacchi Construction Co., Munsey Bldg., for 10-classroom, brick addition to School No. 20, Federal and Eden Sts.; Frederick A. Fletcher, Archt., 13 W. Franklin St. 3-19

Md., Baltimore—St. Leo's Roman Catholic Church, Rev. John Mitchell, Pastor, 221 S. Exeter St., receives bids April 7 for \$75,000, 3-story, 100x114 ft., brick school and convent, 906-11 Stiles St.; 8 classrooms, gymnasium and assembly hall; capacity 400 students; Cyril H. Hebrank, Archt., 3 E. Lexington St.; following contractors estimating: Frainie Bros., 19 W. Franklin St.; B. F. Bennett Bldg. Co., 123 S. Howard St.; Henry T. Torrell & Son, 4112 Kathlamet Ave.; Thomas Mulan, 3945 Greenmount Ave.; Decou & Child, Eutaw and Biddle Sts.; Clark Construction Co., American Trust Bldg.; Lacchi Construction Co., Munsey Bldg.; Frank Marine, 2 E. Lexington St.; Arundel Construction Co., 910 Trinity St.; Howard Meyers, 2116 Maryland Ave.; Avon Construction Co., 216 E. Lexington St.; Mueller Construction Co., 3304 Barclay St.; T. D. Keating, 2121 W. Baltimore St.; Fred Keller & Son, 3405 Echodale Ave.; Beccio Bros., 3316 Belvedere Ave.; Henry L. Maas & Sons, 1119 Ensor St.; E. Eyring & Sons, 809 Conklin St.; Frank Tranzello, 2039 Park Ave., all Baltimore; Polesello Contracting Co., 46th St. and Wilson Ave. 2-26

Md., Baltimore—Bd. of Public Improvement Comsn., H. J. Leimbach, Supvg. Engr., City Hall, ready for bids April 9, close about 10 days later, for \$150,000, 3- or 4-story, conc. and brick, 8 classroom Forest Park Jr. High School, Garrison Ave. and Barrington Road; Smith & May, Archts., Baltimore Trust Bldg.; Kubitz & Koenig, Struc. Engrs., Emerson Tower; Henry Adams, Mech. Engr., Calvert Bldg. 2-19

Md., College Park—University of Maryland, Samuel M. Shoemaker, Chmn., Bd. of Regents, Fidelity Bldg., Baltimore, H. C. Bird, Asst. to Pres., College Park, soon ready for bids for 3-story, brick dormitory; Smith & May, Archts., Baltimore Trust Bldg.; Huldreich Egli, Mech. Engr., 425 St. Paul Place.

Md., College Park—University of Maryland, Samuel M. Shoemaker, Chmn., Fidelity Bldg., Baltimore, and H. C. Bird, Asst. to Pres., soon ready for bids for horticultural building; Smith & May, Archts., Baltimore Trust Bldg.; Huldreich Egli, Mech. Engr., 425 St. Paul Place.

Md., Upper Marlboro—Prince George's County Bd. of Education, Nicolas Orem, Supt., probably select Upman & Adams, Woodward Bldg., Washington, D. C., for number of proposed school buildings in County if bill now before Legislature authorizing \$275,000 is favorably acted upon. 3-26

Md., Westminster—Carroll County Bd. of Education having preliminary plans prepared by Bernard Starr, 7 S. Second St., Harrisburg, Pa., for high school. 3-26

Miss., Enid—Enid Consolidated High School, Frank A. Gore, Sec., rejected bids for one-story brick school. 3-19

Miss., Houlika—Houlika Consolidated School Dist. Trustees erect \$30,000 school.

Miss., Kilmichael—Mayor and Bd. of Aldermen receive bids April 7 for science building on campus of Montgomery County Agricultural High School.

Miss., Morton—Morton Consolidated School Dist. Bd. of Trustees receives bids April 24 for \$45,000, one-story, 177x154 ft., brick, cast stone trim high school; built-up comp. roof; Hull & Malvaney, Archts., Merchants Bank Bldg., Jackson. 3-12

Miss., Pascagoula—Following contractors estimating on one-story brick school at Orange Lake, bids April 6 by Jackson County Bd. of Supervisors: Collins Brothers Contracting Co., Biloxi; F. D. Kibrought, Pine Hill, Ala.; A. Ziegenfeller, Gulfport; Keeton G. Fairley, Hattiesburg; Pate-Cox Construction Co., 746 157 St. Louis St.; F. H. Fleming, 913 Old St. Francis St.; Vandersys Construction Co., Shell Road, all Mobile, Ala.; R. L. Brow, Atmore, Ala.; Smith & Bond, Wiggins; L. E. & W. F. Breland, New Augusta; Lucedale Commercial Co., Lucedale; L. W. Hancock, 26th Ave., Meridian; Shaw & Woleben, Archts., Gulfport. 3-12

Miss., Scooba—East Mississippi Junior College erect brick dairy barn; comp. shingle roof, conc. floors; bids in April 2.

Mo., Freeburg—Freeburg public school; loss \$8000; address School Bd.

Mo., Kirksville—Northeast Missouri State Teachers College plans rebuilding Baldwin Hall to replace structure destroyed by fire several years ago; \$400,000.

Mo., Steelville—Mrs. Ann White, 5848 Enright Ave., plans Charmante Boarding School, 12 miles south of Steelville; Reiff & Faulkner, Archts.

N. C., Raleigh—University of North Carolina, Chapel Hill, North Carolina State College, Raleigh, and North Carolina College for Women, Greensboro, plan merging; each institution will maintain separate plants but will be operated by one unified administration.

Tennessee—State Legislature passed bills authorizing following school bonds: \$100,000 Claiborne County, \$20,000 Benton County.

Tenn., Knoxville—Knox County School Bd., W. W. Morris, Supt., will request County Court to issue \$500,000 bonds; plans erecting Central High School of 2 stories, 25 rooms, 2-story classroom and auditorium addition to Young High School and about 15 small brick buildings to replace frame structure.

Tex., Beaumont—Jefferson County will request Commrs.' Court for authority to vote on \$150,000 bonds for school home for underprivileged children.

Tex., Gainesville—Bd. of Education, Frank Morris, Jr., has low bid at \$35,777 from Lee R. Doughty, 320 E. Ninth St., Dallas, for 2-story, 135x57 ft., brick and rein. conc., cast stone trim ward school; asphalt and tile roof, conc. and wood floors; Wyatt C. Hedrick, Inc., Archt., First Natl. Bank Bldg., Fort Worth. 3-19

Tex., Pettus—Pettus Common School Dist., Leroy Roberts, Pres., soon vote on bonds for one-story, brick, tile and rein. conc., 8-room, auditorium and library school; preliminary plans by Hamon & Co., Medical Professional Bldg., Corpus Christi.

Va., Ceres—Bland County School Bd., Bland, erect \$12,000, brick, 6-room school; ready for bids.

Va., Oceana—Princess Anne County School Bd., Robert J. Johnson, Supt., plans rebuilding high school noted burned at loss \$25,000; fireproof, 7 classrooms, auditorium to seat 300 people; Simpson & Simpson, Bd. of Trade Bldg.; Rudolph Cooke & Van Leeuwen, Arcade Bldg., and Bernard B. Spigel, 254 Granby St., all Norfolk, submitting sketches.

Va., Rice—Prince Edward County School Bd., Farmville, receives bids April 5 for \$30,000, brick and conc. high school.

Stores

Ala., Selma—S. H. Kress Co., 114 Fifth Ave., New York, receives bids April 8 for \$125,000, 2-story and basement, 60x110 ft., brick and tile, stone trim store; hardwood and terrazzo floors, steam heat, built-up roof. 1-22

Ark., Little Rock—Pfeiffer Bros. Department Store, Preston Pfeiffer, Pres., 514-24 Main St., having plans prepared by Thompson, Sanders & Ginocchio, Hall Bldg., for \$500,000, 154x140 ft., 4-story, basement and sub-basement, steel and conc., fireproof store, W. 7th and Main Sts.; Charles E. Swanson, 225 N. Michigan Ave., Chicago, Ill., will have charge of interior architecture; foundation capable of carrying 4 additional stories. 10-16

Ga., Atlanta—S. H. Kress & Co., 114 Fifth Ave., New York, erect building, 1012 Peachtree St., N. E.; 2 stories, basement and mezzanine, rein. conc., brick and tile, stone trim, built-up roof.

Ga., Savannah—C. N. Comatic soon let contract for one-story, 100x35 ft., tile and stucco store; Arthur F. Comer, Archt., Realty Bldg.

Tex., Amarillo—S. H. Kress & Co., 114 Fifth Ave., New York, have plans completed about April 15 for \$110,000, 3-story and basement, brick, tile and rein. conc. store. 1-4

Tex., Houston—T. C. Guseman has permit for \$10,000 improvements to building, 114 Main St.

Tex., Somerset—Olin Boese, Archt., Bldrs. Exch. Bldg., San Antonio, soon have plans completed for one-story, rein. conc. and brick store.

Va., Gate City—W. A. Broadwater Feed Co. rebuild structure noted damaged by fire.

Theatres

Fla., Daytona Beach—Edward Crane, Walter Sneed, 915 Halifax St., and others will form company to build and operate picture theaters in half dozen cities of Florida; first structure to be built in Daytona Beach to be 2 stories, fireproof.

Ky., Louisville—Great Lakes Theaters, Inc., Harry Schwartz, Treas.-Gen. Mgr., Ashabula, Ohio, leased Walnut Theater, 418 W. Walnut St., and remodel.

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New York.....	3113 Hudson Terminal Bldg.	Boston.....	1510 Consolidated Gas Bldg.
Cleveland.....	2216 Midland Bank Bldg.	Havana.....	Apartado 2507

B-168

HORTON TANKS

Tex., Hallettsville—P. M. Brown, Brown Shoe Store, has low bid at \$10,348 from S. G. Reck, 2123 Milford St., Houston, for one-story, main floor and balcony, 110x41 ft. tile, stucco and brick, cast stone trim theater; J. W. Clawson, Archt., El Campo. 3-12

Tex., Refugio—Ben Shelton having plans prepared by Malcolm G. Simons, Builders Exchange Bldg., San Antonio, for 40x90 ft. conc. brick and tile theater and store building. 2-26

Va., Roanoke—Roanoke Lodge No. 197, B. P. O. Elks approved erection of 6-story clubhouse and leasing of site at rear of club to Theatre Holding Corp., Roanoke, care Wm. P. Engel, of Meyer & Engel, 1909 First Ave., Birmingham, Ala., for erection of theater to be leased to Paramount-Publix Theatres Corp., Paramount Bldg., New York; total cost \$800.-

000; C. W. & Geo. L. Rapp, Archts.-Engrs., Paramount Bldg., New York; Eubank & Caldwell, Resident Archts., Boxley Bldg. 11-27

Warehouses

Ga., Augusta—W. W. McElmurry, 1538 Whiting St., has low bid from J. B. Mobley, Broad St., for 2-story, 80x40 ft., brick and stucco warehouse; built-up comp. roof; Scroggs & Ewing, Archts., S. F. C. Bldg. 3-26

Tenn., Gallatin—F. S. Hancock Tobacco Warehouse Co., Springfield, erect 200x300 ft. warehouse on W. Main St.

Tex., Houston—C. A. Leavens, 401 Marshall St., has permit for \$14,500 warehouse, 910 St. Charles St.

La., New Orleans—J. M. Couget, 6432 Catina St., erect single dwelling and garage, Harrison St. near Colbert St.; tile roof.

La., New Orleans—B. C. Johnson, Contr., 2524 Sage St., ready in about 15 days for sub-bids on double dwelling and garage, 2514 Sage.

La., Shreveport—Bert Kouns, Giddens-Lane Bldg., excavating for \$14,000 residence; brick veneer, brass and bronze work, 1 story, 50x50 ft., oak, linoleum and tile floors, asphalt shingle hip roof, steel sash and trim, ventilators, conc. footings; H. E. Schwarz, Archt., Slattery Bldg.; F. E. Griffin, Contr., 3010 Creswell St. 3-26

Md., Baltimore—Real Estate Co. of Baltimore, care Mervis Construction Co., Contr., 1650 E. Fayette St., remodel dwelling, 3901 Forest Park Ave., damaged by fire; \$15,000.

Md., Baltimore—Mrs. Mary A. Kirby, 1712 Guilford Ave., erect brick residence, Roland Park; 1 story, 26x42 ft.; Henry A. Knott Co., Contr., 2107 N. Charles St.

Md., Baltimore—Frank Novak Realty Co., 33rd St., has permit for 16 brick dwellings, 3401-31 Shannon Drive; total \$48,000; owner builds.

Md., Baltimore—Dr. Richard W. TeLinde, 1107 St. Paul St., let contract to Ralph MacMurray, 39th St. and Old York Rd., for frame and stone residence, Poplar Hill; hollow tile, 2 stories, hardwood, linoleum and tile floors, stone foundation, slate roof, elect. refrigerators, hardwood, incinerator, limestone; T. Worth Jamison, Jr., Archt., 12 E. Pleasant St. 3-5

Md., Baltimore—Erwin Warwick, 505 Park Ave., probably let contract to Harry McLeod, Halethorpe, for residence; Cyril H. Hebrank, Archt., 3 E. Lexington St., Baltimore. 3-12

Md., Baltimore—City Real Estate Co., 11 E. Fayette St., erect 5 brick dwellings, Dorchester and White Chapel Rd.; brick, 2 stories, 24x34 ft., slate roof; total \$40,000; Geo. Wessel, Archt., 601 W. 40th St.; owner builds.

Md., Baltimore—Phillip Needle, 111 N. Charles St., erect 4 brick dwellings, 654-60 Mosher St.; 2 stories, 14x44 ft.; Stanislaus Russell, Archt., 11 E. Lexington St.; owner builds.

Md., Baltimore—Phillip I. Heusler, Vice-Pres., Emerson Drug Co., Lombard and Eutaw Sts., erect residence, St. Albans Way and Charles St. Ave.; brick; Wm. Gordon Beecher, Archt., 12 E. Pleasant St.; Consolidated Engineering Co., Contr., 20 E. Franklin St.

Md., Baltimore—Wm. Barnes, 2006 W. Lexington St., erect 4 brick dwellings and garages, 3001-05 Rosalie Ave.; 2 stories, 14x43 ft. and 10x18 ft., slag roofs, steam heat; total \$12,000; Geo. Wessel, Archt., 601 W. 40th St.; owner builds.

Mo., Joplin—Orin L. Lancaster, Box 1215, erect 3 frame dwellings, Redings Mill; 1 story, about 28x32 ft., oak and linoleum floors, cedar shingles and slab shingle roofs, \$3000 each; frame completed on 1; A. J. Richardson, Archt., 601 Ozark Ave.; O. H. Cole, Contr., R. R. No. 2, Box 452.

Mo., St. Louis—J. Kramer, 4156 Loughborough St., erect 3 brick dwellings, 6410-18 W. Court St.; 1 story, 27x45 ft., comp. roofs, hot air heat; total \$12,000; owner builds.

Mo., St. Louis—Florence Meyer, 6316 Permod St., erect 3 brick dwellings, 8545-53 Stratford St.; 1 story, 27x36 ft., comp. shingle roofs, hot air heat; total \$10,000; F. G. Avis, Archt., 1021 Big Bend Rd.; owner builds.

Mo., St. Louis—John W. Miller, 4323 Loughborough St., erect 2 brick dwellings, 5546-50 Walsh St.; 1 story, 26x38 ft., slate roofs, hot air heat; total \$14,000; plans and constr. by owner.

Mo., University City, St. Louis—Advance Realty & Building Co., 7217 Princeton Ave., erect \$12,000 brick dwelling, 7227 Cambridge St.; stories, 38x31 ft., conc. block foundation, tile roof, hot water heat; C. W. Gorges, Archt.; owner builds.

Mo., University City, St. Louis—P. J. & A. J. Biermann, 4000 Flora St., erect \$15,500 dwelling, 7347 Maryland Drive; brick, 2 stories, 62x41 ft., conc. block foundation, slate roof, hot water heat; E. Volkman, Archt.; Victor Architectural & Building Co., Contr., both 4826 Delmar Ave.

N. C., Charlotte—R. C. Hicks, 320 S. Tryon St., erect \$10,000 frame residence, 1220 Queens Rd., West; 8 rooms.

Okla., Tulsa—Horace G. Barnard, Drew Bldg., let contract to W. S. Bellows Construction Co., Oklahoma City, for \$75,000 residence, Forest Hills; elect. refrigerators, hardwood, linoleum, terrazzo and tile floors, incinerator, limestone, marble, tile roof, steel sash and trim; furnishings, equipment, etc., \$25,000; A. M. Atkinson, Archt., 605 Thompson Bldg., Tulsa. 3-5

BUILDING CONTRACTS AWARDED

Association and Fraternal

Ga., Carrollton—Carroll Lodge No. 69, A. F. & A. M., Dr. J. D. Hamrick, Chmn., Bldg. Comm., erect \$15,000 lodge bldg.; brick, wood joist, 2 stories and basement, 80x40 ft., hardwood floors, comp. roof; Geo. Carter, Archt.; day labor.

Miss., Woodville—Ancient Free and Accepted Masons let contract for \$35,000 temple, store and office bldg. to Albert Plitt, Woodville; rein. conc. and brick, rein. conc. foundation, built-up comp. roof, struct. steel and iron work, steel sash, 2 stories, 64x80 ft.; Robt. H. Goodman, Archt., Bk. of Baton Rouge Bldg., Baton Rouge. 3-12

Bank and Office

Ga., Atlanta—Following sub-contracts let on 2 additional stories and remodeling, \$150,000 to \$200,000, of bldg. for United Corp., Candler Bldg.: Rein. steel and lath material, Southern G-F Co., 263 Decatur St., S. E.; roofing and sheet metal work, Claude A. McGinnis, 905 Permore Ave., N. E.; millwork and trim, Willingham Tift Lumber Co., 866 Murphy Ave., S. W.; lathing and plaster, P. L. Gomez & Co., Bona Allen Bldg.; marble, Reeves Marble Co., Healey Bldg.; tile and terrazzo, Piedmont Tile Co., Red Rock Bldg.; painting, Merrill P. Wilson, Bona Allen Bldg.; plumbing and heating, Seckinger Bros., 180 Forsyth St., S. W.; elect. work, Courson & Hitt, 135 Nassau St., N. W.; comp. flooring, using Johns-Manville products, Southern Floors Co.; sprinkler system, Grinnell Co., 248 Highland Ave., N. E., all Atlanta; limestone, Weed Powers Cut Stone Co., Bedford, Ind.; misc. iron and struct. steel, Price-Evans Foundry Corp., Anderson Ave., Chattanooga, Tenn.; metal store front constr., Detroit Show Case Co., 1654 W. Fort St., Detroit, Mich.; mail chute, Cutler Mail Chute Co., Rochester, N. Y.; metal doors and trim, Trussbilt Steel Doors, Inc., 101 Park Ave.; metal windows, Campbell Metal Window Corp., 1 Pershing Square, both New York; A. Ten Eyck Brown, Archt.; A. Barill, Jr., Asso. Archt.; Robt. G. Lose, Struct. Engr., all Forsyth Bldg.; Griffin Construction Co., Contr., P. O. Box 1424, all Atlanta. 3-19

Tex., Longview—Chamber of Commerce interested in erection of \$500,000 medical arts bldg. with hospital on 2 top floors; Dee Humphrey Construction Co., Burt Bldg., Dallas, probable contractor.

Churches

Ga., Jessup—First Methodist Church let contract to Scarborough & Miller, Leesburg, Fla., for \$30,000 bldg.; brick, 1 story, conc. foundation, comp. roof, wood floors, steam heat; Lloyd Greer, Archt., Valdosta. 8-21

Miss., Gloster—Methodist Church, J. H. Morrow, member, Bldg. Comm., started work on 2-story annex; 6 classrooms, dining room and kitchen.

Mo., St. Louis—Winnebago Presbyterian Church let contract to Kellermann Contracting Co., Buder Bldg., to complete bldg.; Aegerter & Bailey, Archts., Rwy. Exch. Bldg.

Tex., Martindale—Baptist Church erecting \$10,000 bldg.; face brick and hollow tile, 2 stories, 33.6x60 ft., rolling partitions, oak and conc. floors, Johns-Manville built-up roof; furnishings, equipment, etc., \$2000; Moore & Hale, Archts., Belton; A. Bauhof, Contr., Lockhart. 3-26

Va., Leesburg—St. James P. E. Church probably let contract to Terry Hirst, Leesburg, for stone parish hall; sketches being made; wood roof trusses, 1 story, 35x60 ft., cement floors, slate roof, wood sash and trim; Smith & Edwards, Archts., 1707 I St., N. W., Washington, D. C. 3-5

City and County

Mo., Kansas City—City let contract to C. A. Kelly, 3909 Harrison St., for Fire Station No. 5, 11th and Campbell Sts., at \$41,924, and No. 11, 21st and Vine Sts., at \$22,750. 3-1

Dwellings

D. C., Washington—G. Spendlove, Forest Hills, let contract to Edwin L. Taylor, 2032 Belmont Rd., N. W., for \$13,000 residence, 2811 Albemarle St.; brick and hollow tile, 2 stories, slate roof, hot water heat, oil burner. 3-26

D. C., Washington—Jacob Rubin, 3704 Macomb St., N. W., erect \$15,000 brick and stone residence, 4319 18th St.; 2 stories, slate roof, hot water heat; owner builds.

D. C., Washington—Jos. Freeman, 1542 Twenty-fifth St., S. E., erect 3 brick dwellings, 1612-16 S. St., S. E.; 2 stories, tin roof, hot water heat; total \$15,000; owner builds.

D. C., Washington—Schwab, Valk & Canby, 1704 Connecticut Ave., erect stone, brick, hollow tile and frame dwelling, 4505 Lowell St.; 2½ stories, slate roof, hot water heat, \$10,000; owners build.

D. C., Washington—Frank Perna, 827 Fourteenth St., erect stone, cinder block and brick residence, River Rd. and Davenport St.; 2½ stories, tile roof, hardwood floors, hot water heat; Porter & Lockie, Archts., 1800 E St.; work by sub-contract.

Fla., Miami Beach—Milco Investment Corp. erect \$10,000 dwelling, 945 Meridian Ave.; Carlos B. Schoeppl, Archt., 2382 N. Alton Road; Jesse P. Montz, Contr., 8238 N. E. Ninth Ave., both Miami.

Fla., Tampa—Mrs. Leonard McManus, Maccon, Ga., erect \$31,000 residence, Barbados St. and Bosphorus Ave., Davis Islands; brick, stucco, stone and orna. wrought iron, 2 stories, tile roof, 3 baths, pipe organ, sun parlor; garage with laundry and servants' quarters; Frank A. Winn, Jr., Archt., 207½ Twigg St.; E. M. Scott, Contr., 2012 Osborne Ave., both Tampa.

Ga., Atlanta—I. Blank, 62 Chestnut St., erect brick veneer residence, 1839 Boulevard, N. E.; 1 story, wood floors, comp. shingle roof, tile bath, hot air heat; owner builds.

Ga., Atlanta—John M. Ogden, 909 Oakdale Rd., let contract to Barge-Thompson Co., 136 Ellis St., N. E., for \$110,000 residence, Paces Ferry Rd.; brick, stone, hollow tile, struct. steel and rein. conc., 2 stories and basement, 43x167 ft., hardwood, slate and tile floors, field stone foundation, variegated slate roof; Richard W. Alger, Archt.; Geo. Harwell Bond, Asso. Archt., both 1513 Candler Bldg. 3-12

Ga., Atlanta—J. R. Rhodes, 823 Virginia Ave., N. E., erect brick veneer residence, Lullwater Rd., after plans by Jess Wilhoite, Archt., Mtg. Guar. Bldg.; 2 stories, 28x60 ft., brick foundation. 3-19

Ga., Atlanta—E. J. Wood, Alpharetta, Ga., erect brick veneer residence, 1136 Reeder Circle, N. E.; 1 story and basement, 7 rooms and bath, hardwood and tile floors, comp. roof; day labor.

Ga., Jasper—Col. Sam Tate, Tate, Ga., erect \$20,000 addition to Connyhanie Lodge, Burrell Mountain near Jasper; native stone and log, 3 stories, 30x50 ft.; dining and guest rooms; DeFord Smith, Archt., 289 Peachtree St., N. E., Atlanta; day labor.

Ga., LaGrange—Fuller Callaway, Jr., care Callaway Mills, let contract to Newman Lumber Co., LaGrange, for hunting lodge; log, 2 stories, conc. foundation, wood floors, tile baths, rubble stone; Ivey & Crook, Archts., Candler Bldg., Atlanta.

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STEAM REFINED STOCKS

S. C., Greenville—C. B. Martin, Beattie Bldg., plans \$12,000 duplex, 107 E. Prentiss Ave.; Beacham & LeGrand, Archts.; Thos. Nilson, Contr., Wallace Bldg.

S. C., Greenville—Waddy Thomson plans \$12,000 residence, McIver and Belmont Sts.; W. R. Ward, Archt., Walker Bldg.; Fiske-Carter Construction Co., Contr., Masonic Temple.

Government and State

Ala., Maxwell Field, Montgomery—Constructing Quartermaster let contract at \$61,450 to Batson-Cook Co., Inc., West Point, Ga., for Air Corps warehouse, machine shop and assembly shop (3 bldgs.), Maxwell Field; conc. footing, hollow tile walls, stucco, steel frame and roof, steel sash and trim, conc. floors and foundation, 1 story, 111x200 ft. 3-26

La., Baton Rouge—Mathews Co., Milwaukee, Wis., has contract for millwork for \$5,000,000 State Capitol; waterproofing, D. S. Mellum; cast stone, Edw. D. Boyle & Co., Inc., 3301 Julia St., both New Orleans, La.; following have contracts for sculpture work: Lee Lavire, \$43,900; Piccirilli Bros., 467 E. 142nd St.; Ulric E. Ellerhusen, 16 E. 23rd St., \$38,000, all New York; Adolph Alexander Weinman, Long Island, New York, \$45,000; Loreda Taft, 6016 Ingleside Ave., Chicago, Ill., \$50,000; Lachine & Co., 927 Toulouse St., New Orleans, \$22,000; State will use white granite instead of limestone around base of bldg., Alabama limestone instead of Indiana limestone, bronze instead of steel windows and sills; also install \$28,600 voting machine and \$10,591 tube system; Weiss, Dreyfous & Seifert, Archts., Maison Blanche Bldg., New Orleans; George A. Fuller Co., Munsey Bldg., Washington, D. C., and Fuller Bldg., New York. 3-19

Md., Fort George G. Meade—Constructing Quartermaster has low bid from John M. Kisner & Bro. Lumber Co., 208 Norfolk Ave., Fairmont, W. Va., for 7 single sets non-commissioned officers' quarters; contract to be let in about 1 week. 3-19

Texas—Alamo Iron Works, 130 Santa Clara St., San Antonio, Tex., reported, has contract for 253 tons steel for Central Prison Farm, Sugarland, and contract for 350 tons rein. steel for barrack, Camp Normyle, San Antonio, for which A. J. Rife Construction Co., 1913 N. Harwood St., Dallas, Tex., has gen. contract at \$164,350. 3-12 and 3-19

Texas, Huntsville—Treasury Dept., Jas. A. Wetmore, Act. Supv., Archt., Washington, D. C., let contract at \$59,792 to Samford Bros., Inc., 301 Washington Ave., Montgomery, Ala., for post office. 3-5

Texas, Randolph Field—Constructing Quartermaster let contract at \$78,568 to George E. Wieland, 106 E. 25th St., Austin, Tex., for 7 company officers' quarters; Spanish type, masonry, 2 stories; John M. Marriott, Archt., Frost Natl. Bk. Bldg., San Antonio. 3-19

Texas, Randolph Field—Constructing Quartermaster let contract at \$63,992 to L. T. Wright & Co., 911 Bldrs. Exch. Bldg., for 2-wing addition to academic bldg.; Spanish type, masonry, 2 stories and basement; Ralph M. Cameron, Archt., Majestic Bldg.; W. E. Simpson & Co., Engrs., Milam Bldg., all San Antonio. 3-5

Texas, Sugarland—Sprague-Sells Corp., 215 Primera St., has contract at \$8174 for canning plant equipment for Central State Prison Farm; Giesecke & Harris, Archts., Norwood Bldg., Austin; Dr. F. E. Giesecke, Consultant, College Station; Lloyd D. Royer, Constt. Mech. Engr., 911 Smith-Young Tower, San Antonio. 3-12

Va., Fortress Monroe—Coley & Peterson, Inc., 432 Boush St., Norfolk, Va., have heating and plumbing contract for \$120,000 bachelor officers' quarters, Fort Monroe; elect. work, S. J. Watson, Jr., 16 E. Queen St., Hampton, Va.; elevators, Moffatt Machinery & Manufacturing Co., 510 W. Third St.; plaster and stucco work, D. Draddy & Co., 2101 Dilworth Road W., both Charlotte, N. C.; marble, tile and terrazzo, Blue Ridge Tile Co., Tyler Bldg., Asheville, N. C.; linoleum floors, W. A. Lippincott, Inc., 518 W. Church St., Jacksonville, Fla.; paint and paint work, Brewer Paint & Wallpaper Co., Rocky Mount, N. C.; Townsend Lumber Co., Gen. Contr., Anderson, S. C. 3-19

Hospitals, Sanitariums, Etc.

Ky., Louisville—P. Bannon Pipe Co., 13th and Breckinridge Sts., has contract for hollow tile for \$500,000 John W. Norton Memorial Infirmary; J. F. Russell & Co., Contr., Brock and Bloom Sts.; D. X. Murphy & Bro., Archts., Louisville Trust Bldg., Louisville; Frank E. Chapman, Director of University Hospital Group, Cleveland, O., Consultant. 1-22

La., New Orleans—Treasury Dept., Jas. A. Wetmore, Acting Supv., Archt., Washington, D. C., let contract at \$299,974 to R. P. Farnsworth Co., Maritime Bldg., New Orleans, for 8 personnel quarters, U. S. Marine Hospital; nurses' home accommodate 60, 3 stories; bachelor officers' quarters accommodate 30, 2 stories; 6 duplexes; all brick. 3-26

Miss., Jackson—Mississippi Building Comsn., New Capitol Bldg., R. L. Brown, Sec., let contract at \$187,565 to M. T. Reed Construction Co., Belzoni, for 5 patients' cottages and 2 epileptics' bldg., Mississippi Insane Hospital; Currie & Corley, Hattiesburg, contract for disturbed patients' bldg., at \$73,293; I. C. Garber, Standard Life Bldg., Jackson, contract for disturbed patients' bldg., at \$73,293; Oden & Glenn, Carter Bldg., Hattiesburg, contract for dining hall and kitchen at \$69,150; B. E. Walker Construction Co., Standard Life Bldg., Jackson, heating contract at \$44,000; Hamilton Bros., Gulfport, plumbing on 8 bldgs. at \$34,846; Davis Plumbing Co., 115 S. State St., Jackson, plumbing for 4 cottages at \$11,722; J. P. Williams, 224 North St., Jackson, elect. wiring at \$7885; N. W. Overstreet, Archt., Standard Life Bldg., Jackson; Vinson B. Smith, Advisory Archt., Gulfport. 3-12

N. C., Asheville—Randolph County Hospital, D. B. McCrary, Chmn., Bldg. Comm., let contract to Burrows & Lamb, Asheville, for \$73,000 hospital and \$9000 nurses' home; fireproof, rein. conc., struct. steel, hollow tile brick, probably cast stone trim, steam heat, steel sash; 40x140 ft. and 35.6x55.6 ft., 2 and 3 stories; furnishings, equipment, etc., \$48,000; Eric G. Flannagan, Archt., Henderson. 3-19

Hotels and Apartments

Ga., Atlanta—M. Frankel, 538 Washington St., convert residence, 592-94 Washington St., into 4-apartment building; comp. roof, hardwood floors; owner builds.

Mo., St. Louis—J. H. Poesner, 7394 Bedford St., erect \$10,000, 2-story, 34x50 ft., brick tenement, 1437-39 Prairie St.; comp. roof, hot air heat; H. R. Poesner, Bldr., 5859 Roosevelt St.

Miscellaneous

D. C., Washington—Union Market Terminal, Phillips & Caldwell, Agents, 927 B St., N. W., erect Unit E, Fourth and Morse Sts., S. E.; series of 8 stores, 2 stories, rein. conc. and brick; Chas. H. Tompkins Co., 1608 K St., N. W., Bldrs. See Want Section—Building Material and Equipment.

Fla., Naples—A. C. Joslin let contract to R. G. Witters Co., 1745 S. W. 6th St., Miami, for \$26,000, one-story, frame and stucco clubhouse; Wm. Sparklin, Archt., Fort Myers.

Ga., Toccoa Falls—Toccoa Falls Institute, R. A. Forrest, Pres., erecting (foundation completed) by day labor \$20,000, 3-story, 40x90 ft., stone dormitory; comp. roof, wood floors; equipment \$10,000. 3-19

N. C., Charlotte—Charlotte Wood-Working Manufacturing Co., W. Palmer St., has contract for millwork for \$200,000 clubhouse under construction for Charlotte Country Club; Southeastern Construction Co., Gen. Contr., 210 W. Second St.; Aymar Embury II, Archt., 150 E. 61st St., New York. 1-22

S. C., Charleston—Folly Beach Corp. let contract to Olaf Otto, 412 E. Bay St., Savannah, Ga., for \$50,000, 120x150 ft., brick and frame resort building at Folly Beach.

Texas, Fort Worth—Following sub-contracts awarded on one and two-story, L-shaped, 90x50 ft., brick and stucco, terra cotta trim warehouse and cold storage building, 1101 Jones St., under construction (on foundation) for Texas Ice & Refrigerating Co.; Safety Stores, Inc., Lessee: Plumbing, Schmidt Plumbing Co., 209 W. 11th St.; wiring, Hensley Electric Co., 2245 N. Main St.; millwork, Ingram & Co., W. T. Waggoner Bldg.; struc. and rein. steel, North Texas Iron & Steel Co., 1401 N. Adams St.; sheet metal, Keetch Manufacturing Co., 107 S. Main St.; painting, J. Walter Rogers, 246 W. 13th St.; plastering, B. C. Gordon, 2913 May St.; brick, Acme Brick Co., Neil P. Esperson Bldg.; sand and gravel, Fort Worth Sand & Gravel Co., Electric Bldg., Annex; steel sash, Samuel A. Ellsberry, Cotton Exchange Bldg.; steel shutters, Metal Products Co., 105 Lamar St.; terra cotta, Northwestern Terra Cotta Co., Burk Burnett Bldg., all Fort Worth; cork, York Ice Machinery Co., 2201 Texas St., Houston; Thos. S. Byrne, Inc., Contr., Fort Worth Natl. Bank Bldg.; private plans.

Va., Roanoke—Diocese of Richmond, Rt. Rev. Andrew J. Brennan, Bishop, 800 Cathedral Place, having plans prepared by A. Byron Williams, Citizens & Marine Bank Bldg., Newport News, for \$50,000 boys orphanage for St. Andrew's Catholic Church, Father T. B. Martin, Rector. 3-26

Railway Stations, Sheds, Etc.

Md., Baltimore—Baltimore and Ohio R. R., F. X. Milholland, Asst. to Sr. V.-P., extending present platform 50 ft. and it is planned to cover entire platform; provide space for 14 or 15 cars, including 6-car track; depressed track being installed along 21st St. on north side of platform; cost \$31,500.

Schools

D. C., Washington—Dietrich Brothers, 220 E. Pleasant St., have contract for 150 tons struc. steel for Hugh M. Brown Jr. High School for which Arthur L. Smith & Co., 2539 Pennsylvania Ave., N. W., have general contract at \$418,873; Concrete Steel Co., 42 Broadway, New York, has contract for 50 tons rein. bars; A. L. Harris, Municipal Archt., Dist. Bldg. 3-12

Ga., Savannah—Chatham County Bd. of Education, O. B. Strong, Supt., let contract at \$141,000 to The Artley Co., 504 E. Bay St., for 2-story and basement, struc. steel, brick and tile, stone trim unit of Jr. High School; Levy & Clark, Archts., Blum Bldg.; Cletus W. Bergen, Asso. Archt., Liberty Bank & Trust Bldg. 3-19

Ga., Tifton—Tift County Bd. of Education let contract to E. A. Mullis for one-story, brick veneer school; comp. roof, wood floors, hot air heat; plans by State Dept. of Education, Capitol Square, Atlanta.

Ky., Louisville—Bd. of Education, Samuel D. Jones, Bus. Dir., let contract at \$203,760 to Moore Brothers, 304 Cecil Ave., for Jacobs Addition School; heating and ventilating, \$39,872. Redmon Heating Co., 124 N. Fourth St.; electric, \$7610, Thirlwell Electric Co., 106 N. Fourth St.; plumbing, \$12,787, H. Netherton Co., 114 N. Fifth St.; 16 rooms, cafeteria and combination gymnasium and assembly room; J. M. Colley, Archt., 8th and Chestnut Sts. 2-26

Ky., Harrodsburg—Bd. of Education let contract at \$18,000 to Marion Gregory for school to be built under Julius Rosenwald Foundation.

Ky., Louisville—P. Bannon Pipe Co., 13th and Breckinridge Sts., has contract for struc. tile for Crescent Jr. High School on Grinstead Drive and unit at James Russell Lowell Elementary School, 4401 Crittenden Drive; George H. Rommel Co., 958 Logan St., has general contract at \$429,000 for former and at \$242,000 for latter; J. M. Colley, Archt., 8th and Chestnut Sts. 7-10-30 and 2-5-31

La., Vacherie—St. James Parish School Bd., Convent, let contract at \$38,000 to Caldwell Brothers, 816 Howard Ave., New Orleans, for 2-story, 70x90 ft., frame, 10-classroom and auditorium addition to elementary school at Vacherie and alterations and 8-room addition to frame school at Romeville; Wm. R. Burk, Archt., Balter Bldg., New Orleans. 3-12

Md., Baltimore—Following sub-contracts awarded on North-East Jr. High School (foundation under way) for which Wm. Langhorne Co., 1900-04 Parrish St., Philadelphia, Pa., and 816 American Bldg., Baltimore, has general contract at \$552,000: Excavation, Potts & Callahan, Knickerbocker Bldg.; heating, plumbing and ventilating, Modern Engineering Co., E. Pleasant St.; limestone and granite, Clough & Malloy, Inc., Harford Rd. and B. & O. R. R.; millwork, Heise & Bruns Mill & Lumber Co., 600 S. Caroline St.; acoustical treatment, John H. Hampshire, Inc., 36th St. and Roland Ave.; plastering, Coleman & Reilly; steel sash and metal windows, Truscon Steel Co., Standard Oil Bldg.; arch brick, Burns & Russell Co., American Bldg.; furnishing mastic tile and Kalamein, Wm. E. Gambrill & Co., 213 East St.; furnishing face brick, Monumental Brick & Supply Co., Munsey Bldg.; Wm. W. Emmart, Archt., Union Trust Bldg. 1-29

Md., Cumberland—SS. Peter and Paul Catholic Church started work on 2-story, brick and stone, fireproof, 18-classroom parochial school, Smallwood and Fayette Sts.; R. Holt Hitchens, Archt., Perrin Bldg.; John I. Vandergrift, Contr., McCleave Bldg. 3-6

Texas, Dallas—Mosher Steel & Machinery Co., 5209 Maple St., has contract for 131 tons struc. shapes and bars and Austin Bros., 1815 Coombs St., contract for 44 tons bars for Robert E. Lee School for which Eckert-Burton Construction Co., Inc., Burt Bldg., has general contract at \$103,742; De Witt & Washburn, Archts., Kirby Bldg. 3-12

Texas, Houston—St. Nicholas Church, Father Carl Schappert, S. J., started work on \$25,000, 2-story, conc. block, 14-classroom school, 2500 block Bell St.; auditorium to seat 800 people; also erect \$7000, 2-story, brick convent in 1400 block Live Oak St.

Texas, Sherman—Sherman Ind. Dist. School



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No. 1

Bd., R. G. Piner, Sec., let contract at \$66,775 to Crisman & Nesbit, Dallas, for school building; John Tulloch, Archt. M. and P. Bank Bldg. 3-19

Va., Bloxom—Accomac County School Bd., H. A. Wise, Supt., Parksley, started work on 2-story, 90x114 ft., brick, 12-classroom and auditorium school for which Mottley Construction Co., Box 264, Farmville, has general contract at \$52,900; cinder block and brick, built-up roof, maple floors, steel sash and trim, ventilators; plans by R. V. Long, Div. School Bldgs., State Dept. of Education, Richmond; recently incorrectly noted at Va., Parksley. 3-26

Stores

Ga., LaGrange—Harvey Timmons let con-

tract to Newman Lumber Co., for one-story and basement, brick, struc. steel and hollow tile store to be leased to J. C. Penney Co., E. G. Ruffner, Dist. Mgr., Haas-Howell Bldg., Atlanta; comp. roof; Burge & Stevens, Archts., Marietta Bldg.; S. S. Storer, Const. Engr., Thrower Bldg., both Atlanta. 2-19

Md., Baltimore—Dr. Grover C. Ney, 2401 Linden Ave., let contract to Louis Tapper, 5001 Elmer Ave., for store; David Harrison, Archt., 3735 Reisterstown Road.

Mo., St. Louis—Louis Adler, 7527 S. Broadway, expend \$10,000 for improvements to 2-story, store and tenement; J. Shulman & Sons, Bldr., 5103 Vernon St.

Theatres

Tex., San Antonio—J. R. Garza, 4121 W.

merce St., has permit for \$10,000, 50x175 ft., conc. and tile theater; 1306 Guadalupe St.; G. J. Blodeau, Contr., 834 W. Cypress St.

Warehouses

D. C., Washington—Concrete Steel Co., 42 Broadway, New York, has contract for 350 tons concrete bars for 4-story, 250x150 ft. warehouse for Palais Royal; George A. Fuller Co., Gen. Contr., Munsey Bldg.; Abbott Merkt Co., Archt., 175 Fifth Ave., New York; F. B. Pyle, Supvg. Engr., Evans Bldg. 3-19

Miss., Columbus—L. W. Richardson Wholesale Grocery Co., Clayton Richardson, Pres., let contract to D. S. McClenahan & Son and start work in few days on two fireproof warehouses on College St.; steel roofs, conc. floors, brick walls.

WANT SECTION

THE CLASSIFICATIONS IN THIS SECTION ARE:

Machinery and Supplies

Under this heading are reported requests for data, prices and literature and information on machinery, supplies and miscellaneous materials of a wide variety.

Building Materials and Equipment

This division comprises all classes and kinds of materials and equipment used in building and construction projects of every kind.

Bids Asked

Includes bids asked by U. S. Government, States, districts, municipalities, firms and individuals for machinery, materials, supplies and construction work.

Items in this department are published without charge and these columns are open for the publication of wants of all kinds relating to construction work, machinery, materials and supplies.

Machinery and Supplies

Crane Boom and Bucket.—General Utilities Co., Inc., 254-256 W. Tazewell St., Norfolk, Va.—Wants prices and data on clamshell boom for ¾-yd., Model 206 P&H and ¾-yd. clamshell bucket for same; give condition, location and price.

Flour and Feed Grinding and Mixing Machinery.—Geo. W. Schachle, Contractor and Builder, 1408 E. Gonzales St., Pensacola, Fla.—Wants prices and data from manufacturers of machinery for grinding and mixing poultry and dairy feeds, and machinery for small flour mill.

Ice Cream Making Machinery.—Thos. T. Rhea, 731 S. Somerville St., Memphis, Tenn.—Wants prices and data from manufacturers of machines for making frozen custard

Locomotive (Gasoline).—S. Weinberg Co., Granville, N. Y.—Wants prices and data on three 20-ton, 36-in. gauge, gasoline locomotives; state location and condition.

Recrusher.—R. P. Johnson (Mchy. Dealer), Wytheville, Va.—Wants prices and data on used recrusher, 25 to 30 tons hourly capacity of material of 1 in. and under, good condition.

Road Building Machinery.—Felix Canales Salazar, Civil Engr., Tegucigalpa, Honduras—Wants prices and data on all types of highway machinery operated by petroleum or steam and adaptable to tropical and mountainous countries.

Road Building Machinery and Materials.—Ing. Juan Carlos Bustos of Roads and Bridges, La Plata, Argentina—Wants catalogs and descriptive literature on all types of machines and material for building and maintaining highways.

Road Building Machinery.—Pittendigh Wilson & Co., Tai Ping Bldg., P. O. Box 2, Hong Kong, China—Wants information, including C. I. F. or F. O. B. prices on road building machinery for use in China.

Daily Times-Echo, Spring St., Eureka Springs, Ark.—Wants following for newspaper and job printing plant:

- (1) Newspaper Press
- (2) Casting Machine
- (3) Power Saw
- (4) Stapling Machine.

Hudson & Dugger Co. of Arkansas, P. O. Box 65, Little Rock, Ark.—Wants prices and data on following:

- (1) Generator—50, 20 or 10 kw., a. c., 440 volt, direct connected to engine
- (2) Motors—two 10 h. p., 3 phase, 60 cycle, 440 volt; two 5 h. p., 440 volt, 3 phase, 60 cycle
- (3) Planers—Berlin No. 160, Yates B2, or Whitney 30x7, 4 or 6 knife round head, sectional feed rolls and sectional pressure bar, used, good condition, motor or belt driven
- (4) Switchboard Panel—440 volt, 3 phase, 60 cycle, no watt meter needed; state what is on panel
- (5) Transfer Car—ball bearing, for dry kiln
- (6) Voltage Regulator—2 point, 440 volts.

Ed. P. Phillips Machinery Co. (Mchy. Dealer), Ninth and Cary St., Richmond, Va.—Wants prices and data on following:

- (1) Clamshell Bucket—½ yd.
- (2) Derricks—guy or stiff leg; 5, 7½, 10, 15 and 20 ton, one of each
- (3) Hoist—with swinging engines, gas or steam driven, 50 h. p.; 3-drum, 60 to 80-h. p. hoist with swinging engines, gas or steam driven.

Standard Peat Products Corp., Suite 1239, 521 Fifth Ave., New York, plans building 2 peat manufacturing plants in Florida, location not definitely decided, and wants prices on following, partly new and partly second hand:

- (1) Baling Presses—for baling peat moss, belt or motor drive
- (2) Conveyor Material—chains, sprockets, gears, shafts—all pintle chain, 400 class or heavier
- (3) Barges—150 to 250 ton shallow barges, wood or steel, also lighter barges
- (4) Drag Line Scraper Outfit—complete, 1 yard
- (5) Gasoline Locomotives and Dump Cars—either 24-in. or 36-in. gauge and 6 to 10 tons, including rail equipment
- (6) Row Boats—two with outboard motors
- (7) Suction Dredge Equipment—complete for 6-in. suction dredge on wooden hull, including several 1000 ft. of light discharge pipe 6-in. or 8-in. and 2 drum hoists
- (8) Tow Boats—one or two, light.

Southern Gravel Co., Sanford, N. C.—Wants prices and data on following:

- (1) Drag Line—¾ yd.
- (2) Boom and Dipper (Dragline)—for ¾ yard Erie shovel.

W. M. Smith & Co. (Mchy. Dealer), Box 1709, Birmingham, Ala.—Wants prices and data on following:

- (1) Band Mill—7-ft., right hand, roller bearing, 3 block, 36 or 40-in. carriage and 9 or 10-in. shot gun feed complete;
- (2) Surfacers—24-in. single.

Marianna Lime Products Co., Marianna, Fla.—Wants prices and data on following:

- (1) Brick Manufacturing Machinery
- (2) Hydrate Plant
- (3) Lime Kiln Equipment.

Miscellaneous

Dimension Stock, Desk Hardware, etc.—East & West Desk Co., Dayton, Tenn.—Wants prices and data on dimension stock in maple, oak, beech and birch; also plywood desk tops and school desk seats in same woods, special thin head bolts and friction hinges.

Road Materials.—See Machinery and Supplies—Road Building Machinery and Materials.

Slot Locks (Coin Controlled).—J. W. Sorrell, Alexander City, Ala.—Wants prices and data on coin controlled slot locks for miniature pool tables.

Tile.—City, S. H. Sullivan, Sullivan, Mo.—Wants prices and data on 3000 ft. 15-in. tile; quote prices on good grade seconds, F. O. B. cars, Sullivan.

Upholstery Fabrics, etc.—Coast Awning Co., 1614 Thornton Ave., Gulfport, Miss.—Wants prices and data on upholstery fabrics and equipment.

Building Material and Equipment

American Legion, La Feria, Tex., wants prices on following for \$10,000 club house.

Cast Stone
Flooring—hardwood
Roofing (flat)—asbestos shingle
Wire Glass.

J. R. Rhodes, 823 Virginia Ave., N. E., Atlanta, Ga., wants prices on following for residence:

Flooring—hardwood, linoleum, tile
Plaster Board
Roofing (hip)—slate
Steel Sash and Trim.

Russell W. Langmaid, Contr., 3305 Taney Rd., Baltimore, Md.—Wants prices on following for \$7000 dwelling:

Flooring—hardwood, tile
Roofing—asphalt shingle.

Chas. H. Tompkins Co., Contr., 1608 K St., N. W., Washington, D. C., wants prices on following for Unit E, Union Market Terminal:

Brickwork
Cast Stone
Caulking
Doors—sliding, overhead
Electric Work
Elevators—hand power
Flag Pole—wood
Glazing

Hardware
Lighting Fixtures
Metal Doors
Millwork
Painting
Plumbing

Rein. Steel
Refrigeration
Roofing—built-up
Sheet Metal
Steel Sash and Trim.

Rev. Hale V. Davis, Pastor, 1833 Linden Ave., Oklahoma City, Okla., wants general literature now on following for \$400,000 church (prices later):

Cast Stone
Flooring—terrazzo, tile, composition
Limestone
Roofing—slate, tile
Steel Sash and Trim
Tile—gypsum, hollow, interior
Terra Cotta Trim
Wire Glass.

Bids Asked

Airplane Hangar.—City of Laurel, Miss., M. W. McLaurin, Mayor—Bids April 6 for construction of airplane hangar; work includes, hangar, work shop, office.

Airway Lighting.—W. S. Erwin, Chief Division of Supplies, Dept. of Commerce, Washington, D. C.—Bids April 30 for installation of lighting facilities on Phoenix-El Paso section of San Diego-El Paso Airway; work consists of installing about 26 electric revolving beacons, 6 electric code beacons, and 1 acetylene blinker, together with other nec-

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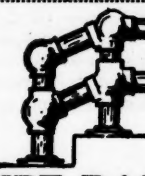
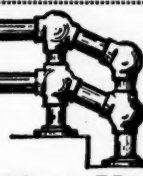
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WRIGHT

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essary appurtenances and accessories between Phoenix-El Paso, a distance of about 400 miles; 4 of the revolving beacons and 3 electric code beacons will be installed at intermediate landing fields, together with boundary lighting systems; beacons as rule to be mounted on 51 ft. or other height galv. steel skeleton towers; information on application to Commissioner of Lighthouses, Washington, D. C.; Proo. No. 23100.

Asphalt (Rock).—Good Roads Comsn. of Dist. No. 1, Lauderdale County, E. H. Walker, Sec., Meridian, Miss.—Bids Apr. 7 for 4 cars of rock asphalt to be ordered as needed.

Barrels, etc.—Quartermaster Depot, U. S. Army, Washington, D. C.—Bids Apr. 7 for 500 sugar barrels, 500 book boxes, 700 packing boxes and 50,000 excelsior pads.

Blasting Mat, etc.—Commanding Officer, Aberdeen Proving Ground, Md.—Bids Apr. 7 for blasting mat of sisal rope, trolley track tipping bucket and spur gear trolley block.

Bolts.—State Highway Comsn., Ben M. Sawyer, Ch. Commr., Columbia, S. C.—Bids Apr. 9 for galv. machine bolts and lag bolts.

Bridge.—Alabama and Mississippi. See Construction News—Roads, Streets and Paving.

Bridges.—State of Virginia—Bids for 3 bridges. See Construction News—Roads, Streets and Paving.

Bridge.—Kentucky. See Roads, Streets and Paving.

Bridges.—State of South Carolina—Bids for 14 bridges. See Construction News—Bridges, Culverts and Viaducts.

Cells and Steel Work (Jail).—City, Guy Drew, City Clk.—Bids Apr. 6 for cells and other steel work for city jail.

Cotton Batting.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 7 for 2000 lb. cotton batting, delivery Quantico, Va.

Demolition Blocks.—Office of Ch. Engr., U. S. Army, 2726 Munitions Bldg., Washington, D. C.—Bids Apr. 15 for 105,000 lb. t. n. t. demolition blocks.

Fencing Materials.—Ben M. Sawyer, Ch. Highway Commr., Columbia, S. C.—Bids Apr. 9 for furnishing fencing material f. o. b. Camp Jackson, S. C.

Fire Alarm Systems.—Bd. of Public Service, 208 City Hall, St. Louis, Mo.—Bids Apr. 14 for installing and servicing, or installing, rental and servicing central station automatic fire alarm systems in various city institutions.

Folding Machine.—See Printing Press.

Furniture.—Comms., District of Columbia, Washington, D. C.—Bids Apr. 7 for 4 suites walnut bedroom furniture, for Gallinger Hospital.

Gate and Valve Operating Machinery.—U. S. Engr. Office, Norfolk, Va.—Bids Apr. 14 for furnishing, delivering and installing, or furnishing and delivering only, gate and valve operating machinery for guard lock, Inland Waterway, Great Bridge, Va.

Hydraulic Laboratory.—Dept. of Commerce, Bureau of Standards, Washington, D. C.—Bids April 7th for National Hydraulic Laboratory; 1 story, 50x400 ft., brick and stone, rein. conc., metal windows, steel sash, slag roof, steam heat, electric elevators; cost \$350,000.

Leather.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 7 for leather, 7 sides and 3 backs, delivery Quantico, Va.

Miscellaneous.—Panama Canal, Office of Pur. Officer, Washington, D. C.—Bids Apr. 13 for following, Sch. 2644:

Galv. pure iron sheets, storage batteries, radio head-set receivers, test clips, hydrometers, foundry brushes, marine gasoline engine, bronze propellers, wire, cable, etc.

Miscellaneous.—Panama Canal, Office of Gen. Pur. Officer, Washington, D. C.—Bids Apr. 14 for following, Sch. 2643:

Bare copper wire, copper clad steel wire, high-tension suspension insulators, clevises, suspension clamps, strain clamps, splicing sleeves, etc.

Miscellaneous.—Panama Canal, Office of Gen. Pur. Officer, Washington, D. C.—Bids Apr. 10 for following, Sch. 2641:

Gas accumulators, transformers, lightning arresters, and disconnecting switches.

Oil.—U. S. Engr. Office, Navy Bldg., Washington, D. C.—Bids Apr. 7 for 34 bbl. cylinder and engine oil.

Packing Supplies.—Contracting Officer, Q. M. Corps, Ft. Benning, Ga.—Bids Apr. 6 for 1,500 barrels, 200 barrel heads, 1200 book boxes, 1500 packing boxes, 40,000 yd. jute burlap, 200,000 bd. ft. cypress lumber, 1500 lb. naphthalene, 300 lb. nails, 50,000 excelsior pads and 5000 lb. wrapping paper.

Paper.—Treasury Dept., Bureau of Engraving and Printing, Washington, D. C.—Bids Apr. 30 for check paper, postage stamp pa-

per and internal revenue paper during fiscal year beginning July 1, 1931; contracts will be made only with actual manufacturers of postage stamp and internal revenue paper.

Photographic Work.—U. S. Engr. Office, Huntington, W. Va.—Bids Apr. 6 for photographic work for Marmet and London Locks, period beginning with date of contract and ending June 30, 1931.

Pipe (Copper).—Bd. of Awards, Baltimore, Md.—Bids April 8 for furnishing copper wire to Bureau of Water Supply.

Pipe and Fittings.—U. S. Engr. Office, Huntington, W. Va.—Bids Apr. 6 for pipe and fittings for Dam 26, Ohio River.

Pier Repairs.—U. S. Engr. Office, Charleston, S. C.—Bids Apr. 23 for repairing south stone pier at U. S. Engr. Wharf, Charleston. See Construction News—Miscellaneous Construction.

Planers.—Pur. Agt., Government Printing Office, Washington, D. C.—Bids Apr. 10 for single surface planers.

Pressure Tank.—See Water Well.

Printing Press.—Pur. Agt., Government Printing Office, Washington, D. C.—Bids May 6 for flat-bed fed printing press and combination winding and folding machine.

Pump.—See Water Well.

Ranges and Water Heaters (Electric).—Panama Canal, Office of Gen. Pur. Officer, Washington, D. C.—Bids Apr. 7 for electric ranges and electric water heaters, Sch. 2642.

Refrigeration.—Office of Director, National Zoological Park, Washington, D. C.—Bids Apr. 10 for furnishing and installing equipment for completion of 2 cold storage rooms in basement of reptile house; indicated space to be divided into 2 insulated rooms: 1-ton compressor of ammonia type required.

Revetment.—U. S. Engr. Office, Postal Telegraph Bldg., Kansas City, Mo.—Bids Apr. 24 for about 2400 lin. ft. standard revetment, Missouri River, Murrays Bend, near Jefferson City.

Roads.—State of Kentucky—Bids for 8 roads. See Construction News—Roads, Streets and Paving.

Roads.—State Highway Dept., Dover, Del.—Bids Apr. 22 for following road work: Cont. 178, Cooch's Bridge-Maryland Line, 296 mi., 14,000 cu. yd. excavation, 3400 cu. yd. borrow, 3800 cu. yd. conc. paving, 2100 lin. ft. expansion joint, 13,000 lb. reinforcement, 4000 sq. yd. conc. gutter, 2000 lin. ft. wood shoulder curb; Cont. 181, Hartly to Sudersville road, 2.9 mi., 11,700 cu. yd. excavation, 500 cu. yd. borrow, 5150 cu. yd. conc. pavement, 15,400 lin. ft. longitudinal joint, 3100 lin. ft. expansion joint, 1800 lb. reinforcement, 1800 lin. ft. wood shoulder curb; Cont. 188, Green's Mill-Bowden's Garage, 1.51 mi., 4900 cu. yd. excavation, 500 cu. yd. borrow, 2700 cu. yd. conc. pavement, 8000 lin. ft. longitudinal joint, 1500 lin. ft. expansion joint, 900 lb. reinforcement.

Roads.—State of Virginia—Bids for 5 roads. See Construction News—Roads, Streets and Paving.

Roads.—State of Maryland—Bids for 4 roads. See Construction News—Roads, Streets and Paving.

Roller Shelf Units.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 10 for 2 roller shelf units, delivery Washington, D. C.

Sewer Construction.—City of Houston, Tex.—Bids April 8 for construction of section No. 1 of North Main St. storm sewer system extending along White Oak gully from Vincent and Fugate Sts. to Winston and North Main Sts.

Sewer Construction.—R. Keith Compton, Director of Public Works, Richmond, Va.—Bids April 10 for construction of Sheppard St. relief sewer, consisting of approximately 1700 ft. of 120-in. monolithic and 1600 ft. of precast conc. pipe, sizes 72-in., 78-in. and 84-in.; for furnishing and delivery of approximately 1600 ft. of precast conc. pipe, sizes, 72, 78 and 84-in.; furnishing and delivering approximately 13,200 vit. clay slab lines or 66,000 vit. paving brick liners.

Sluice Gates and Wall Castings.—Dept. of Commerce, Bureau of Standards, Washington, D. C.—Bids April 10 for sluice gates and wall castings, in connection with erection of National Hydraulic Laboratory for which bids will be opened April 7th.

Steel.—Comms., District of Columbia, Washington, D. C.—Bids Apr. 6 for struct. steel for shop building, D. C. workhouse.

Switching Equipment.—U. S. Engr. Office, Navy Bldg., Washington, D. C.—Bids Apr. 7 for substation switching equipment and appurtenances.

Street.—New Orleans, La. See Construction News—Roads, Streets and Paving.

Street.—Baltimore, Md. See Construction News—Roads, Streets and Paving.

Valves.—Comms., District of Columbia, Washington, D. C.—Bids Apr. 6 for 3 20-in., 5 24-in. and 1 36-in. gate valves.

Water Well.—Dept. of Interior, National Park Service, Oliver C. Taylor, Engr. in Charge Colonial National Monument, Yorktown, Va.—Bids April 6 for construction of gravel-wall well having capacity of not less than 1,000,000 gal. of water daily and the provision and installation of a motor driven deep well turbine pump, equipment for well and a connected 10,000 gal. pressure tank.

Trade Literature

Air Made Wells.—The Sullivan Machinery Company, Chicago, has issued Bulletin 71-J as a temporary edition describing the Air Made well for pneumatic pumping of sand and silt strata. This method, combining the special well construction engineering of the Air Made Well Company, Kansas City, Mo., and Sullivan air lift equipment methods, is said to have proven effective and successful in cases where it is desired to develop a water supply from shallow sand and gravel strata.

Standards Yearbook.—The fifth issue of the Standards Yearbook has been compiled by the National Bureau of Standards of the United States Department of Commerce. The publication presents a picture of the standardization movement in various fields of industry conducted by certain national and international agencies, and contains outlines of the standardization activities and accomplishments not only of the National Bureau of Standards and other agencies of the Federal Government and states, counties and municipalities, but also of technical societies and trade associations.

Slag as Concrete Aggregate.—The National Slag Association, Cleveland, Ohio, is distributing a booklet "Blast Furnace Slag as Concrete Aggregate," covering a report of the American Concrete Institute, Detroit. The Birmingham Slag Company, Birmingham, Ala., is a member of the National Slag Association.

Cork Covering.—L. Mundet & Son, New York, have issued the "Black Book" covering price lists of Mundet "Jointite" cork covering for low temperature pipe lines—brine, ammonia, ice water. In addition to prices, the book presents comprehensive specifications for installation of Mundet "Jointite" cork pipe covering under various conditions.

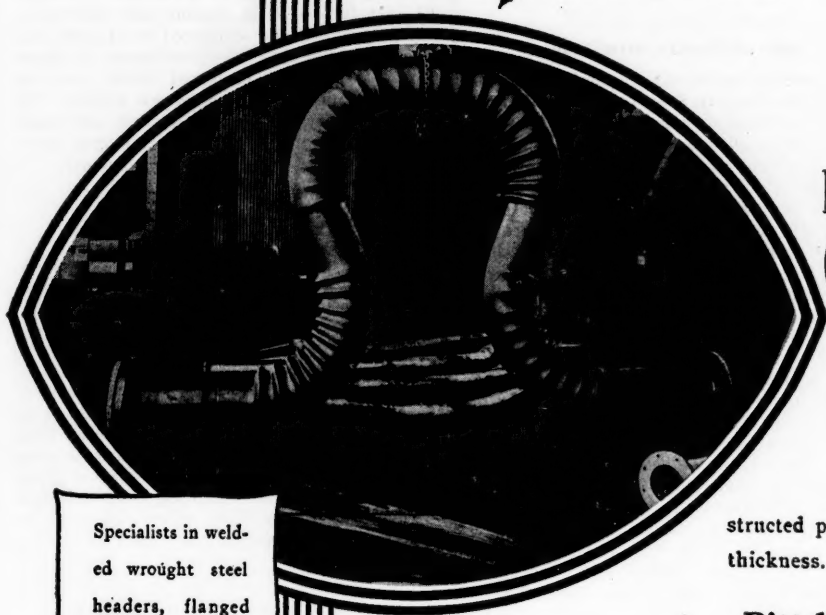
Safety Lighting Cable.—Bulletin 100-A1, issued by the Sullivan Machinery Company, Chicago, describes the special use of Stringlite safety lighting cable for railroad freight houses. This is said to be but one of a number of uses to which this cable may be put in railroad construction or industrial service.

Dirigible Electrical Contract

An order has been placed with the Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa., for all electrical equipment for the big navy dirigible ZRS-4 being constructed at Akron, Ohio, by the Goodyear Zeppelin Corporation. The equipment will include generators, emergency motor generator set, switchboard, radio equipment, etc. Much of it will be of special design, aluminum being used wherever possible.

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INDUSTRIAL NEWS

Sovereign Pocahontas Company

The Sovereign Pocahontas Company has been organized with executive sales offices at 17 Battery Place, New York, and general offices in the Perry Building, Bluefield, W. Va. The company was incorporated under the laws of West Virginia and is a producer of smokeless and high volatile coals. Its officers include W. J. Richards, chairman of the board; W. A. Richards, president; J. E. Westervelt and W. C. Stephenson, vice-presidents.

Chemical and Industrial Engineers

Joah Etchells, Baltimore, Md., connected with the late Mr. Meade of Richard K. Meade & Company, chemical and industrial engineers, 10 West Chase street, Baltimore, for the past 14 years, announces that he will continue the business of the company as president and general manager, under the name of Richard K. Meade & Company, Inc. The new company specializes in technical advice and engineering in the cement, lime, gypsum and allied industries.

Selling and Servicing Brownell Stokers and Boilers

The Alabama Stoker & Boiler Company has been organized in Birmingham to take care of the sales and service of Brownell underfeed stokers manufactured by the Brownell Company, Dayton, Ohio. The company has already begun operations with agencies in principal cities throughout the territory it has selected for the sale of the Brownell heavy duty and domestic stokers and boilers; this embraces the states of Alabama, Georgia, Florida, Tennessee, Mississippi and Louisiana. Officers of the new company include Prince DeBardeleben, president; Truman A. Thomas, vice-president and general manager, and Walker DeBardeleben, secretary and treasurer.

Sale of Eastern Steel Plant

Real estate, machinery, equipment and material of the Eastern Steel Co., Pottsville, Pa., will be auctioned at a master's and receiver's sale on the premises on April 20, 21 and 22, 1931, the real estate, machinery and equipment to be offered by order of the master first as an entirety and then in piecemeal lots, while the stock and office furniture will be sold by order of the receiver in piecemeal lots only. The real estate consists of a tract of about 52 acres of land improved by an office building, rolling mills, machine shop, boiler house, dwellings, electric shop and oil house and other facilities; two reservoir tracts and several large vacant tracts adjoining the plant, and property in eastern Cuba of about 3850 hectares. Machinery and equipment consist of electrical cranes of various types and capacities, electric hoists, water tube boilers, manganese crushers, locomotive cranes, generators, railroad track, motors, lathes, shears and other equipment, while the stock consists of H and I beams, billets, scrap, etc. Office furniture and equipment will also be sold. Descriptive illustrated catalogs may be had from Samuel T. Freeman & Co., auctioneers, 1808-10 Chestnut street, Philadelphia, Pa., and 80 Federal street, Boston, Mass.

Resigns After 59 Years

The J. A. Fay & Egan Company, Cincinnati, Ohio, manufacturers of woodworking machinery, announce the resignation of J. E. Hirst, chief engineer, after a continuous service of 59 years. Mr. Hirst started as an apprentice with the old J. A. Fay Co. in 1872, serving under his father who had been with the firm from 1859. The J. A. Fay & Egan Company was formed in 1893 by a merger of J. A. Fay and the Egan Co. and Mr. Hirst was made superintendent. In 1900 he became assistant general manager, later being promoted to chief engineer.

Byllesby Report

According to the report of H. M. Byllesby & Company, investment securities, Chicago, Ill., net income from trading and underwriting, etc., in 1930 amounted to \$1,807,149. The company paid cash dividends of \$2.00 per share on its preferred stock, and on Class A and Class B common stocks. No distribution in either cash or stock was made during the year to officers or employees under the profit sharing plan of the company.

Acquires Boiler Plant

The Foster Wheeler Corporation, New York, announces acquisition of the plant and business of the D. Connelly Boiler Company, Cleveland, Ohio, for 50 years in the boiler manufacturing field. With the shop facilities and organization of the Cleveland company, the deal enables the Foster Wheeler Corporation to manufacture boilers in a wide range of sizes and pressures, while a boiler shop fully equipped enables the company to meet requirements for heater and evaporator shells, as well as for fractionating and stabilizer towers used extensively in its petroleum refining and gasoline recovery plants.

New Campbell Window Branch

The Campbell Industrial Window Co., Inc., New York, manufacturers of solid section metal windows, announce the establishment of a branch distributing warehouse at 4300 Washington avenue, New Orleans, with Owen Barry, formerly of the Truscon department of Woodward-Wight & Co., Ltd., New Orleans, in charge. Large stocks of the Campbell products will be carried in the New Orleans warehouse, it is said, including pivoted and projected windows, casement and double hung windows, steel weatherstripped windows, industrial doors and frames, cast iron basement windows, chimney and ash pit doors, coal chutes, dampers, ventilator grilles, pressed steel lintels and casement window screens. Another product offered by the Campbell company is Vita Glass, said to allow the passage of sun rays ordinarily barred by common glass.

Natural Gas Meeting

Memphis, Tenn.—A tentative program has been arranged for the annual convention of the Natural Gas Department of the American Gas Association to be held in this city May 11-14 at the Hotel Peabody. Speakers scheduled to address the convention at its opening session include H. C. Cooper of the Hope Natural Gas Co., Pittsburgh, Pa.; Alexander Forward, managing director of the American Gas Association, New York; G. W. Gallagher of the East Ohio Gas Co., Cleveland, Ohio; B. H. Gardner of the Columbia Gas & Electric Corp., Wilmington, Del., and Mayor Watkins Overton of Memphis. Speakers at the afternoon session of the opening day will include H. S. Bean of the United States Bureau of Standards, Washington, whose subject is "Gas Measurement"; E. L. Rawlins and W. B. Berwald, both of the

United States Bureau of Mines, Washington, whose subjects, respectively, are "Gas Well Deliveries" and "Pipe Line Flow." P. McDonald Biddison of the Southern Natural Gas Corporation, Birmingham, Ala., will discuss problems in the "Compression and Transmission of Natural Gas" and H. D. Hancock of Henry L. Doherty & Co., New York, will outline the principal technical and research problems now confronting the industry.

The morning session of the second day, May 13, will be devoted to a drilling symposium, in which J. French Robinson of the Hope Natural Gas Co., will represent the East; B. M. Nowery of the United Gas Public-Service Co., Houston, Tex., will represent Mid-Continent producers, and a representative of the Pacific Coast natural gas industry will deal with problems in his field. In the afternoon of the second day, the speakers will

include E. N. Watkins of the Arkansas Natural Gas Corporation, Shreveport, La.; J. A. Martin and L. B. Denning, Jr., of the Lone Star Gas Co., Dallas, Tex. The final session will be devoted to a symposium of production problems, with S. W. Meals of the Carnegie Natural Gas Co., Pittsburgh, Pa., representing the East and R. M. Stuntz of the Cities Service Gas Co., Bartlesville, Okla., representing the Mid-Continent producers.

\$9,557,000 North Carolina Bonds

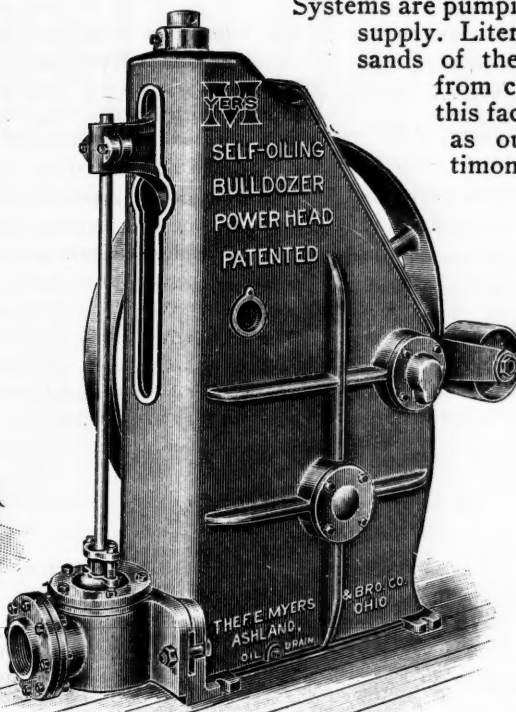
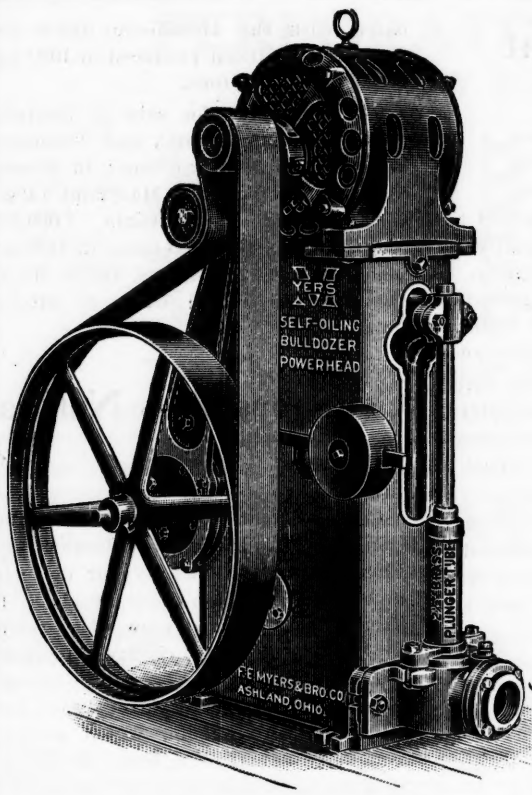
Raleigh, N. C.—Bonds in the amount of \$9,557,000 have been sold by the state of North Carolina to the First National Bank of New York, on the basis of 4.02 per cent. Various issues include \$4,000,000 for roads, \$1,500,000 for bridges, and the remainder for improvements and other betterments.

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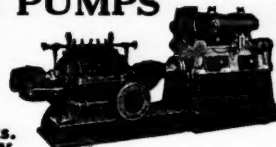
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AUGUSTA, GA.

Maryland Manufactures Valued at \$1,120,000,000 in 1929

According to the Census Bureau, the value of manufactured products in Maryland in 1929 was \$1,120,000,000. There were 3229 establishments reported as engaged in manufacturing in the state and they employed 19,880 persons, paying out in wages \$149,051,000 and \$46,304,000 in salaries. Materials purchased totaled \$521,661,000 and \$38,521,000 was expended for fuel and power. The rated capacity of prime movers in manufacturing in Maryland totaled 298,439 horsepower while the horsepower of electric motors driven by purchased current amounted to 362,027.

The number of wage earners and the value of products represent increases of 3.7 and 18.8 per cent, respectively, as compared with 126,700 wage earners and products valued at \$943,410,896 reported for 1927, the last preceding census year.

The census of manufactures covers manufacturing and printing and publishing establishments whose products made during the census year were valued at \$5000 or more.

The following table gives summary figures for the state of Maryland and by cities having 10,000 inhabitants or more. These figures are preliminary and subject to revision.

SUMMARY FOR MARYLAND

The State:	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, fuel and purchased current	Value of products	Horse-power
1929	3,229	131,399	\$149,051,281	\$560,183,235	\$1,120,409,058	660,466
1927	3,205	126,700	141,902,797	564,120,437	943,410,896	579,713
1919	4,937	140,342	147,866,545	549,347,379	873,944,774	406,637
Cities having 10,000 inhabitants or more: 1929*						
Annapolis	8	31	\$42,771	\$56,277	\$184,903	34
Baltimore	2,140	86,018	96,666,746	381,265,156	816,716,974	294,892
Cumberland	49	5,664	7,506,866	20,969,829	37,949,536	24,770
Frederick	44	1,487	1,271,554	5,744,366	8,897,992	5,508
Hagerstown	78	4,930	4,912,232	11,608,859	22,514,770	13,139

*Salisbury was reported at the 1930 census of population as having 10,000 inhabitants, but manufacturing figures are not as yet available.

Pig Iron Production

Southern manufacturers during 1930 maintained a pig iron and ferro-alloy production of 89 per cent of the 1929 tonnage for that section, while producers of the entire country produced but 75 per cent of the 1929 figure, according to the American Iron and Steel Institute, which indicates that the South's production during the past year amounts to 4,347,415 tons, as compared with the 31,752,169-ton output for the country. For the preceding year the output of the South was 4,879,039 tons and that of the United States, 42,613,983 tons. The 1930 figures include 42,880 tons of ferro-alloys produced in the South and 731,262 tons produced throughout the country, and the 1929 figures include 69,330 tons and 856,768 tons respectively.

Analysis of the 1930 production shows that the rate of decrease in production of pig iron, exclusive of ferro-alloys, was the least in West Virginia, Kentucky and Tennessee, with but a 2.34 per cent decline, and greatest in the Pennsylvania area, where the production fell 33.57 per

cent. Maryland and Virginia showed a 2.34 per cent decrease from the 1929 figure, while Alabama's production of 2,382,221 tons represented a 6.48 per cent decline. Ohio ranked next to Pennsylvania with a 23.23 per cent decrease, Indiana and Michigan following with a decline of 12.18 per cent. Percentage decreases for other areas were: Illinois, 10.44; Massachusetts and New York, 6.72, and Minnesota, Colorado and Utah, 2.35.

Of the 1930 production, basic pig iron led the list of the various grades with a tonnage of 18,393,384, or 59.29 per cent of the total, as compared with the 1929 figure of 24,911,654 tons, which was 59.66 per cent of the production for that year. Bessemer and low-phosphorus pig iron in 1930 amounted to 7,314,749 tons, or 23.58 per cent of the total; foundry pig iron, 3,622,779 tons, or 11.68 per cent; malleable pig iron, 1,571,512 tons, or 5.07 per cent, and forge pig iron, .16 per cent of the total production. Ferro-manganese and spiegeleisen topped the list of ferro-alloys with a tonnage of 362,386, or 49.56 per cent of the total, as com-

pared with the 476,655-ton figure for 1929. Ferro-silicon produced in 1930 aggregated 337,640 tons.

Pig iron made for sale in Virginia, West Virginia, Alabama and Tennessee amounted to 1,475,687 tons; in Massachusetts, New York and Maryland, 1,088,053 tons; in Pennsylvania, 1,099,723 tons; in Ohio, 1,364,105 tons; in Indiana and Illinois, 1,123,264 tons, and in Michigan, Minnesota and Utah, to 416,587 tons.

Columbus Gets Natural Gas

Columbus, Ga.—Plans for the distribution of natural gas in Columbus and Phenix City and vicinity for domestic and industrial uses have reached the stage that a trained crew of workmen are making necessary changes in gas fixtures in local homes. Gas will be brought here by the Southern Natural Gas Corporation, Birmingham, which recently completed a main line from the Monroe and Richland gas fields in Louisiana to Atlanta, with subsequent extensions to Mobile, Pensacola and other points. Local distribution will be handled by the Georgia Power Co., Atlanta, through a newly organized subsidiary known as the Gas Light Company of Columbus.

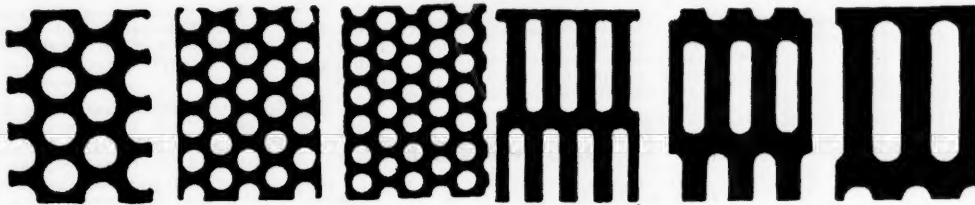
The coming of this new form of fuel was celebrated on March 17 at a meeting sponsored by the Junior Chamber of Commerce of Columbus. J. H. White, president of the Southern Natural Gas Corporation expressed gratification that the company was instrumental in bringing to this community the gas which comes "through a devious network of pipelines, some 1200 miles in length, from a source of supply, which eminent geologists believe will last for many years." John G. Cozart, president of the Junior Chamber of Commerce, presided at the meeting, which was attended by other prominent people, including Mayor J. Homer Dimon of Columbus; Mayor W. E. Sherrer, Phenix City; President Preston S. Arkwright of the Georgia Power Co.; Archie M. Spencer, local superintendent of the gas service for the power company, and others.

\$800,000 Club and Theater

Roanoke, Va.—Roanoke Lodge No. 197, B. P. O. Elks, approved the erection of a new 6-story club house and the leasing of land to the Theater Holding Corporation, Birmingham, Ala., for the construction of a Paramount Theater. C. W. & George L. Rapp, New York, are the architects and Eubank & Caldwell, Inc., resident architects. The two buildings are estimated to cost \$800,000.

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FINANCIAL NEWS

Bond Issues Proposed

Ala., Birmingham—Jefferson County, W. D. Bishop, Pres., Bd. of Revenue, opens bids Apr. 27 for \$500,000 courthouse construction bonds. 3-19

Fla., Miami Beach—City, reported, now offering \$900,000 public improvement bonds.

Ga., Albany—Dougherty County votes Apr. 10 on \$500,000 road bonds.

Ga., Atlanta—Fulton County, Jere Wells, Supt. of Schools, plans election on \$500,000 school building bonds. 1-29

Ky., Covington—Campbell County will issue \$108,000 funding bonds.

La., Oakdale—City voted \$90,000 electric light and power bonds. 2-19

La., Slaughter—Town Council, L. L. Upton, Town Clk., called off election on \$16,500 waterworks system bonds. 2-19

Md., Clear Spring—City asked Legislature for permission to hold election on \$45,000 water system bonds.

Md., Cumberland—City, Attorney Charles Z. Heskett, City Attorney, asked Legislature for permission to issue \$100,000 bonds for purchasing right-of-way for opening and extending Front St.

Md., Frederick—City authorized by State Legislature to issue \$225,000 water bonds.

Md., Westminster—Carroll County asked Legislature for authority to issue \$100,000 bonds for internal improvements.

Miss., Raymond—City, Mayor and Bd. of Aldermen, plan issuing \$100,000 water works bonds.

Mo., Houston—Texas County votes April 4 on \$40,000 courthouse bonds.

Mo., Kansas City—City, A. L. Darby, Director of Finance, votes May 26 instead of May 12 on \$32,000,000 bonds. 3-12

Mo., St. Joseph—City, Bartlett Boder, City Comptroller, opens bids Apr. 6 for \$136,000, 4½%, \$1000 denom. coupon refunding bonds.

N. C., Charlotte—City, C. M. Cresswell, City Treas., opens bids Apr. 13 for \$2,200,000, \$1000 denom. bonds. 3-26

N. C., Raleigh—City voted \$250,000 auditorium bonds. 2-26

Okla., Garber—City, Chas. N. Birdsall, City Clk., rejected bids for \$27,000, 6% gas plant bonds; opens new bids Apr. 8. 3-5

S. C., Anderson—City, G. T. McGregor, Mayor, plans election on \$500,000 bonds.

S. C., Greenville—City, Greater Greenville Sewer Comsn., probably sell \$220,000 bonds in near future. 3-26

Tennessee—State Legislature passed bills authorizing following bonds: \$100,000, not to exceed 6% Lincoln County hospital bonds; \$100,000 Trousdale County, 5% funding bonds; \$100,000, not to exceed 6% Claiborne County school bonds; \$45,000, not to exceed 6% Hamblen County indebtedness bonds; \$42,000 Cookeville funding bonds; \$36,000, not to exceed 5% Clarksville waterworks bonds; \$20,000 Benton County, not to exceed 6% school bonds, and \$500,000 Knox County school bonds.

Tenn., Knoxville—Legislature passed enabling act providing for issuance of \$500,000 Knox County school bonds; W. W. Morris, Supt. of Schools.

Tenn., Maynardville—Union County, A. L. Evans, County Judge, opens bids Apr. 6 for \$80,000, 6%, \$1000 denom. bonds.

Tenn., Mountain City—Johnson County, John T. Fuller, Clk. of Committee and Member of County Court, receives bids until Apr. 6 for \$50,000, 5%, \$1000 denom. bonds for refunding claims for rights-of-way for state highway. 3-12

Tex., Beaumont—Jefferson County may hold election on \$150,000 bonds to finance school home for underprivileged children.

Tex., Brownsville—City tentatively set Apr. 9 as date of election on \$150,000, 5% refunding bonds.

Tex., Edna—Jackson County tentatively set Apr. 18 as date of election on approx. \$2,000,000 bonds: \$300,000, refunding; \$1,700,000, new construction.

Tex., Paint Rock—Concho County Road Dist. No. 1, comprising Precincts No. 1 and 3, voted \$285,000 bonds for paving Highways 9 and 4.

Tex., Raymondville—Willacy County considering voting on \$200,000 school bonds.

Tex., San Benito—City, Bruce Gentry, City Engr., denies report that city may vote on \$125,000 bonds for municipal auditorium and library. 3-26

Tenn., South Pittsburgh—City, W. M. Cameron, Recorder, rejected bids for \$75,000, not to exceed 6% street bonds. 3-12

W. Va., Parkersburg—City, Allen C. Mudd, Mayor, voted \$1,095,000 bonds: \$445,000 public improvements and establishing public equipment; \$350,000, paving; \$300,000, enlarging waterworks system and storm sewers. 1-15

Bond Issues Sold

Ala., Opelika—City, W. S. Harris, City Clk. and Treas., sold \$40,000, 6%, \$1000 denom. funding bonds to Ward, Sterne & Co., Birmingham, at 98 and accrued interest. 3-19

Ala., Selma—City, reported, sold \$14,000, 6% bonds recently to Ward, Sterne & Co., Birmingham, at 100.012. 2-19

Ky., Walton—City, reported, recently sold \$25,000 water system bonds to C. W. Ransler, Walton, at 100.60.

La., New Orleans—Orleans Levee Dist., reported, sold \$1,500,000, \$1000 denom. Lake Pontchartrain Lake Front Improvement bonds to International Trust & Banking Co., New Orleans. 2-5

Md., Salisbury—City, J. C. Parsons, City Treas., sold \$5,000, 4½%, \$1000 denom. street bonds to National City Co., New York, at 103.609 and accrued interest. 3-12

Miss., Monticello—Lawrence County Supvrs. sold \$40,000 funding bonds to Walter, Woody & Heimerdinger, Cincinnati, Ohio. 2-19

N. C., Asheville—City sold \$100,000 tax certificates to George P. Street Co., Atlanta, Ga.

N. C., Goldsboro—Wayne County, T. L. Peacock, Jr., County Auditor, sold \$65,000 bond anticipation loan notes to Provident Savings Bank & Trust Co., Cincinnati, Ohio, as 4½, at 100.04. 3-5

S. C., Columbia—State, J. H. Scarborough, Treas., reported, sold \$5,000,000 tax anticipation notes to Bankers Co., First National Bank, both New York, and First National Old Colony Corp., Boston, Mass., at 2.79%.

Tenn., Knoxville—City, John Borden, Dir. of Finance, sold \$500,000 revenue anticipation notes to Joseph Hutton & Estes, Nashville, at par for 4%.

Tenn., Livingston—City, Mayor and Bd. of Aldermen, reported, sold \$40,000 waterworks bonds to American Cast Iron Pipe Co., Birmingham, Ala., and \$20,000 bonds to local firm.

Tenn., Memphis—City, D. C. Miller, Clk., sold \$500,000 revenue notes to Union & Planters Co., Memphis, as 2½s, at 100.0307. 3-19

Tenn., Nashville—City, S. H. McKay, City Clk., sold \$1,000,000 bonds to Commerce Union Co. and Chemical Securities Corp., jointly: \$500,000, 4¼% water bonds at \$500.510; \$500,000, 3¾% school building and improvement notes at par. 3-19

Tex., Mexia—Mexia Independent School Dist. sold \$275,000, 5¼% refunding bonds to Garret & Co., Dallas.

Tex., Texarkana—City sold \$90,000, 5% street widening and improvement bonds to N. P. Sanderson, Texarkana, at par.

Tex., Wharton—City sold bonds aggregating \$65,000 to H. C. Burt & Co., Houston, at 101.923.

Va., Norfolk—City, reported, sold \$800,000 notes to S. N. Bond & Co., New York, at 2.97%.

W. Va., Charleston—State, Wm. G. Conley, Governor, sold \$5,000,000, 3% and 4½% road bonds to syndicate headed by Chase Securities Corp., New York, at 100.0121. 11-27-30

New Financial Corporations

Ga., Cedartown—Cedartown Loan & Finance Co., capital \$50,000, chartered; A. W. Colquitt, Pres.; Fred H. Brewster, First V.-Pres.

Md., Baltimore—Panhandle Eastern Corp., Baltimore Trust Bldg., chartered; Alfred Jervis, Albert L. Miller; deal in securities.

Md., Baltimore—International Bond & Share Corp., 531 Hearst Tower Bldg., chartered; Francis B. Eastman, Charles W. Wass.

Md., Hagerstown—Hook-Rohrbach, Inc., 114 W. Washington St., chartered; E. C. Hook, J. P. Rohrbach; deal in securities.

Miss., Brookhaven—H. V. Wall, L. L. Tyler and associates plan new bank to take over closed First National Bank.

N. C., Rocky Mount—Peoples Mount & Trust Co., capital \$100,000, being formed to open May 1; Frank P. Spruill, V.-Pres., North Carolina Bank & Trust Co. and manager of

its unit here, will be president; D. J. Rose, R. R. Gay and associates, incorporators.

Tex., Colorado—R. H. Looney, J. H. Smoot, C. C. Thompson, and associates completed organization of intermediate credit bank with \$25,000 capital.

City Natinal Bank, W. S. Rowland, V.-Pres., Temple, Tex., plans reopening.

Hyattsville Building Association, Hyattsville, Md., increased capital stock.

National Bank of Commerce, J. G. Adams, Pres., and Commerce Union Trust Co., J. G. Adams, Pres., Asheville, N. C., merged.

Employee Life Insurance

Among the various forms of employee life insurance in operation, the Central Power & Light Company, San Antonio, Texas, utilizes a system which provides three classes of protection.

As "employee gift insurance," on Christmas eve the company gives to the employees free policies ranging from \$500 for six months of service to \$1500 for six years or more. In addition, as "service additional insurance," the employees are eligible to subscribe for insurance equal to the gift insurance, the additional premium to be paid by the employee. Employees receiving a salary of \$1500 also are entitled to obtain insurance to an amount equaling their salaries, at their own charge.

"We feel that our group insurance plan is very much worthwhile and it has been the means of giving protection to a great percentage of our employees who carry no other life insurance," W. D. Boone, treasurer, writes to the MANUFACTURERS RECORD.

Vote on County Merger

Whether Fulton and Campbell counties in Georgia shall be merged into one will be decided by the citizens of Fulton in a vote on April 22, the people of Campbell having already approved the proposition. Enabling legislation was enacted by the General Assembly in 1929, and the affirmative vote in Campbell was nearly four to one.

The composite county would embrace 396 square miles. The population of Campbell is 9903 and of Fulton is 318,587, with assessed valuation of \$285,000,000 in Fulton and \$4,000,000 in Campbell. A two-thirds affirmative vote was required in Campbell, but only a majority is needed in Fulton.

The Treasury Department, Jas. A. Wetmore, Acting Supervising Architect, Washington, awarded contract, at \$299,974, to R. P. Farnsworth & Co., New Orleans, La., to erect eight buildings for personnel quarters at the U. S. Marine Hospital, New Orleans.

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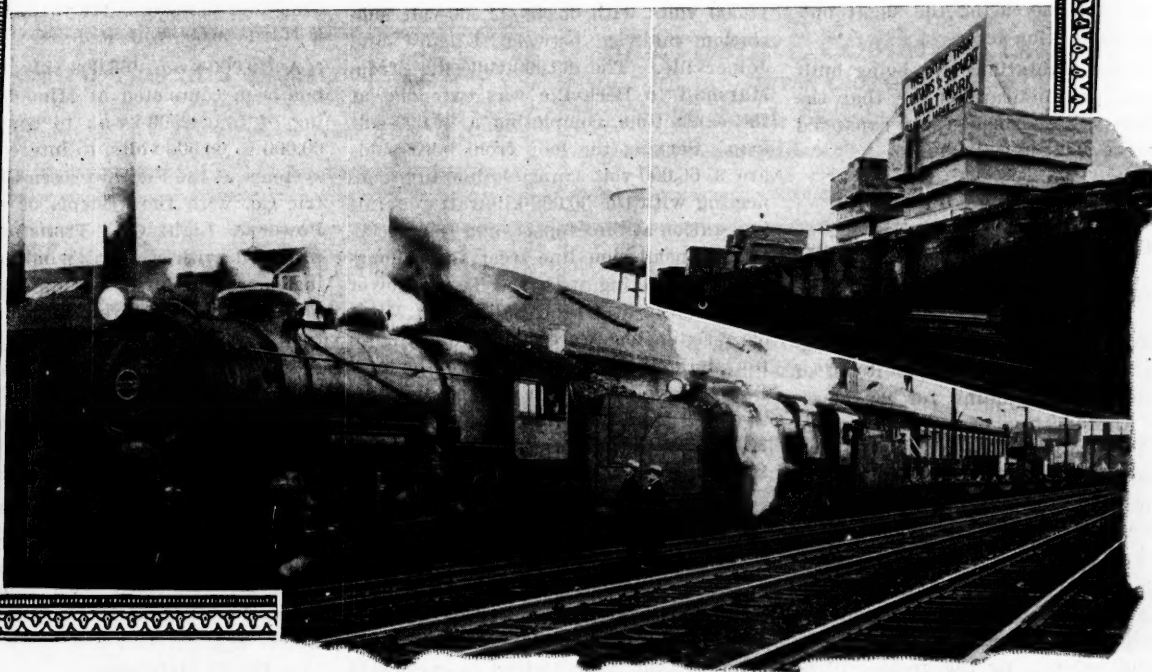
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LOUISIANA SUGAR

Economies Practiced Helping to Revive an Industry Valued at \$200,000,000

New Orleans, La., March 28—[Special.]—Any uncertainty as to the ability of the Louisiana sugar industry to make a comeback was largely dissipated this past season, when, in spite of a light crop and the lowest prices on record, the planters made a slight profit, or at the worst broke even. This has raised a stronger feeling of encouragement than any development in the industry since the demonstration of the new P.O.J. canes, which showed that Louisiana still could raise the raw material.

Energetic planters are already planning the rehabilitation of their sugar mills, first to handle the increasing tonnage of cane, and second to assure the most economical production. The sugar investment in Louisiana today is estimated to be about \$200,000,000. Since the industry revived, four years ago, its production has reached as high as \$22,000,000 a year. It now is working toward \$50,000,000. It is not beyond probability that sugar and its by-products, including molasses, syrup, bagasse and feed crops, will be worth \$100,000,000 a year, on the plantations.

The sugar industry is one of the most striking illustrations of what economy of operation will do. Economies now touch every phase of production, from the field to the factory, and include cheaper planting and cultivation and harvesting methods, more efficient factory operation, and reduced handling charges. The sugar interests have been experimenting and developing for a century. Now, they are planting more cane on a given plantation than they did formerly, and increasing the sugar output per plantation-acre.

Louisiana plantations are being built up again, and indications are that the sugar belt will be considerably expanded during the next few years.

Seek to Connect Eastern National Parks With Highway

A conference will be held in Washington on April 4 in the Caucus Room of the House Office Building, for consideration of the question of an Eastern National Park-to-Park Highway to connect by adequate roads the Mammoth Cave National Park in Kentucky, the Great Smoky Mountains National Park in Tennessee and North Carolina, and the Shenandoah National Park in Virginia. The three great national parks east of the Mississippi are now in process of formation, and before long the areas will be

ready for improvement, operation and maintenance as national parks. State Highway Commissions of Kentucky, Tennessee, North Carolina, Virginia and West Virginia have been invited to send representatives to the meeting, which is sponsored by Representative M. H. Thatcher of Kentucky. Mr. Thatcher has invited also various boards of trade, chambers of commerce, automobile clubs and similar civic bodies.

Shreveport, La.—Low bid to erect 30 double non-commissioned officers' quarters at Barksdale Field here, has been submitted to the Constructing Quartermaster by J. H. Reddick, Fort Smith, Ark., at \$330,500.

Chemists Honor Mr. Mellon

As a feature of the 76th birthday anniversary of Secretary Andrew W. Mellon of the Treasury, the American Institute of Chemists announces the award to Mr. Mellon and Richard B. Mellon of its medal for Distinguished Service to the Science and Profession of Chemistry. This service, the Institute adds, "finds especial expression in the establishment and maintenance of the Mellon Institute of Industrial Research," at Pittsburgh. Another activity in which Secretary Mellon and his brother have been active is the National Institute of Health.

Opening New Texas Oil Fields Spurs Expansion Electric Power Facilities

Longview, Tex.—The Southwestern Gas and Electric Co., Shreveport, La., is rapidly electrifying the East Texas oil fields from Joinerville pool to the Oklahoma State line. A 11,500-volt extension from Henderson to Joinerville was constructed upon the discovery of oil at Joinerville in October, 1930. With the discovery of oil in the Kilgore pool a loop was completed from Longview, Kilgore, Joinerville and Henderson, Kilgore having already been served by the line extending from Longview, and the voltage was raised on the Henderson line from 33,000 to 66,000. The Longview-Kilgore-Joinerville portion operates at 11,500 volts with 66,000/11,500-volt substation midway between Kilgore and Joinerville. The 66,000-volt line from Marshall to Beckville was extended at the same time, completing a 66,000-volt loop. Serving the loop from both sides are a 66,000-volt transmission line connecting with the 30,000-kilowatt generating station at Shreveport, and the 60,000-volt transmission line west from Longview, connecting with the Texas Power & Light Co. at Grand Saline and Mineola. Extensions were made from Kilgore four miles southwest to serve the new Bateman well when it became productive, and from Longview-Gladewater line 12,000 feet to the Lothrop discovery well. With the rapid growth of Kilgore the entire electric distributing system was reconstructed and a 3000-KVA substation was constructed at this point.

The Joinerville field and the Joinerville community were placed on separate circuits from the Henderson distribution in order that interruptions to one would

not interfere with the other. The 2300-volt primary from Henderson was extended outward on the Kilgore road and an eight-pole extension was made at Henderson to take care of new developments. At the Longview substation four 1000-KVA transformers were installed and extensions were built to serve several new industrial plants. Extension of the field northward from Longview is tentatively planned, and Hughes Springs and Longview are to be connected by a 66,000-volt transmission line if justified by the load in the new field. Plans are complete for a 66,000-volt line from Ogden, Ark., to DeKalb and Mt. Pleasant, and southwest to Marshall, if the field continues to move northward, completing a third 66,000-volt loop.

A 10,000-kv-a., 66,000-volt substation has been completed at Mineola, consisting of four 2500-kv-a., to convert from 60,000 to 66,000 volts, to interconnect the systems of the Southwestern Gas & Electric Co. with the systems of the Texas Power & Light Co. Transformers are provided with a third winding, supplying energy at lower voltage for Mineola and for the 11,500-volt distribution system of the surrounding area.

Adequate generating capacity is insured by a 30,000-kilowatt steam generating station at Shreveport, a 6500-kilowatt station at Texarkana, a 4500-kilowatt station at Marshall, interconnections providing 19,000 kilowatt additional and stand-by stations in practically every town served. Transmission lines are connected with those of the Texas Power & Light Co., the Arkansas Power & Light Co., and the Public Service Co. of Oklahoma.

Bridges Connecting New Highways

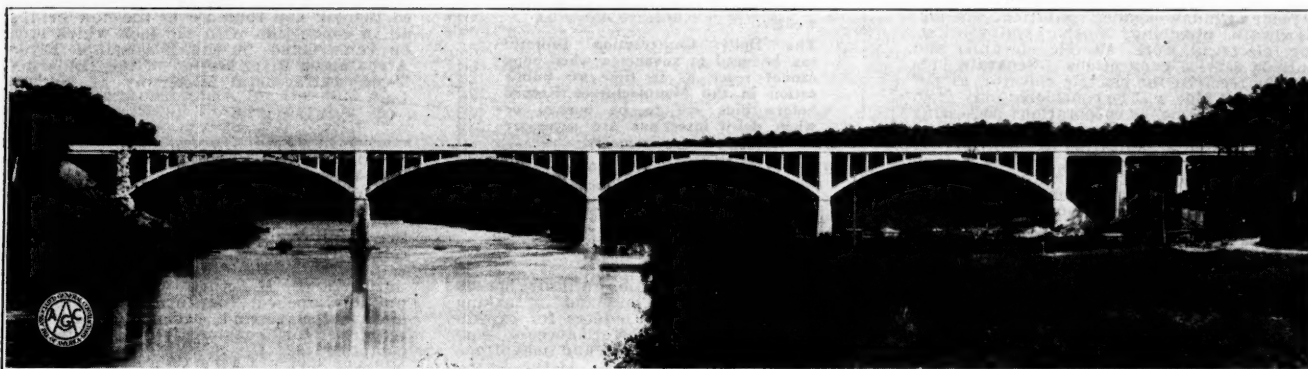
A NEW bridge and highway approaches were needed when the hydro-electric plant was constructed on the Yadkin River, N. C.

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PROPOSALS

BOND ISSUES

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Bids close April 30, 1931.

DEPARTMENT OF THE INTERIOR, Washington, March 23, 1931. Sealed proposals in duplicate will be received at the Department of Interior until 2 o'clock p. m., Thursday, April 30, 1931, for furnishing all labor and materials for constructing at St. Elizabeths Hospital, Washington, D. C., one Tuberculosis Building, No. 1, including roads, walks, grading and drainage. This work will include excavating, reinforced concrete construction, hollow tile, brick work, cut stone work, marblework, floor and wall tile, compressed asphalt tile, terrazzo floors, linoleum floors, ironwork, steel sash, steel stairs, tile and metal roofing, roof ventilators, metal lathing, plastering, carpentry, metal weatherstrips, insect screens, window shades, painting, glazing, hardware, plumbing, heating and ventilating, electrical work, electric elevator, and outside service connections. Separate bids will be received for electric elevator, as per bid form. Bids will be considered only from individuals, firms, or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract and in making award, the records of bidders for expedition and satisfactory performance on contracts of similar character and magnitude will be carefully considered. Drawings and specifications may be obtained upon application to the Construction Division, U. S. Veterans' Bureau, Room 764 Arlington Building, Washington, D. C. A certified check for \$50 payable to the Treasurer of the United States, will be required as a guaranty for the safe return of the plans loaned. Special attention is invited to requirements of the Act of March 3, 1931, regarding rate of wages, set forth in the specifications. Time of performance will be considered an element in awarding the contract. The right is reserved to reject any or all bids, waive technical defects, accept one part and reject the other as the interests of the Government may require. Proposals must be securely enveloped, marked "Proposal for construction of Tuberculosis Building, St. Elizabeths Hospital," and be addressed to the Secretary of Interior, Washington, D. C. JOS. M. DIXON, First Assistant Secretary.

Bids close April 21, 1931.

SEALED BIDS, in triplicate, subject to the conditions contained herein, will be received by the U. S. Veterans' Bureau, Room 764, Arlington Building, Washington, D. C., until 2.30 P. M., April 21, 1931, and then publicly opened for furnishing all labor and materials and performing all work required for constructing and finishing complete at U. S. VETERANS' HOSPITAL, TUSCALOOSA, ALABAMA, BUILDINGS AND UTILITIES, including roads, walks, grading and drainage. This work will include excavating, reinforced concrete construction, hollow tile, brick work, cut stone, cast stone, architectural terra cotta, marble work, floor and wall tile, rubber tile, compressed asphalt tile and linoleum floors, terrazzo, iron work, steel flag pole, steel sash, interior steel stairs with slate treads, exterior steel stairs, steel shelving and cabinets, metal stall partitions, slate, metal and built-up roofing, skylights, roof ventilators, metal lathing, plastering, sound deadening, carpentry, dumbwaiter, platform scales, metal weatherstrips, insect screens, window shades, painting, glazing, hardware, plumbing, vacuum cleaning system, refrigerating and ice making plant, boiler plant, steel water tank and tower, radial brick chimney, heating and ventilating, electrical work, electric elevators, nurses call system, fire alarm system and outside sewer, water, gas, steam and electric distribution systems. SEPARATE BIDS will be received for (a) General Construction including Radial Brick Chimney; (b) Plumbing, Heating, Electrical Work and outside distribution systems; (c) Electric Elevators; (d) Refrigerating and Ice Making Plant; (e) Steel Water Tank and Tower; all as set forth on bid form. Bids will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract and in making award, the record of bidders for expedition and satisfactory performance on contracts of similar character and magnitude will be carefully considered. At the discretion of the Director, drawings and specifications may be obtained upon application to the Construction Division, Room 764, Arlington Building, Washington, D. C., or the Supervising Superintendent of Construction, U. S. Veterans' Bureau, Palo Alto, California. While no deposit will be necessary, return of drawings and specifications within ten days after date of opening bids will be required. Failure to comply with this requirement will be considered in connection with future applications for drawings and specifications. GEORGE E. IJAMS, Director. March 23, 1931.

GENERAL INFORMATION

About Proposal Advertising
in Manufacturers Record

PUBLICATION DAY: Thursday.

FORMS CLOSE: 10 A. M. Tuesday.

When too late to send copy by regular mail to reach us by 10 A. M. Tuesday, forward by night letter or air mail when possible.

THE DAILY CONSTRUCTION BULLETIN OF THE MANUFACTURERS RECORD

Published every business day, gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Construction Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened or when daily insertions are necessary to meet legal requirements.

The rate is the same for both publications—35 cents a line each insertion.

factory financial and technical ability, equipment and organization to insure speedy completion of the contract and in making awards, the records of bidders for expedition and satisfactory performance on contracts of similar character and magnitude will be carefully considered. At the discretion of the Director, drawings and specifications may be obtained upon application to the Construction Division, Room 764 Arlington Building, Washington, D. C. While no deposit will be necessary, return of the drawings and specifications within ten days after date of opening bids will be required. Failure to comply with this requirement will be considered in connection with future applications for drawings and specifications. GEORGE E. IJAMS, Director, March 18, 1931.

Bids close April 23, 1931.

TREASURY DEPARTMENT, office of the supervising architect, Washington, D. C., March 26, 1931.—SEALED BIDS, in duplicate, subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., April 23, 1931, for furnishing all labor and materials and performing all work for remodeling and enlarging the U. S. post office at Decatur, Ala. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications, not exceeding one set, may be obtained at this office, in the discretion of the supervising architect, by any satisfactory general contractor. JAS. A. WETMORE, Acting Supervising Architect.

Bids close April 20, 1931.

TREASURY DEPARTMENT, office of the supervising architect, Washington, D. C., March 21, 1931.—SEALED BIDS in duplicate, subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., April 20, 1931, for furnishing all labor and materials and performing all work for the construction (except elevator and dumbwaiter) of the U. S. post office at Hoboken, N. J. Drawings and specifications, not exceeding three sets, may be obtained at this office, in the discretion of the supervising architect, by any satisfactory general contractor, and provided a deposit of \$25 is made to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. JAS. A. WETMORE, Acting Supervising Architect.

Bids close April 7, 1931.

U. S. ENGINEER OFFICE, First New Orleans District, Poland and Dauphine Streets, New Orleans, La. SEALED BIDS, in duplicate, will be received until 2 P. M., April 7, 1931, and then publicly opened, for furnishing all labor and materials and performing all work for clearing the site, constructing sheet pile cofferdam, making the excavation, driving the foundation piling and sheet pile cut-off walls, constructing the concrete lock walls and floor, including the reinforcing steel, and constructing a temporary open deck timber pile trestle under the tracks of the Texas Pacific-Missouri Pacific Terminal Railroad of New Orleans, providing maintenance on the trestle until such time as traffic is suspended thereon and routed over the new bridge, all in connection with the lock which is to be constructed in the Mississippi River-Atchafalaya River section of the Louisiana-Texas Intracoastal Waterway at Harvey, La.

Bids close April 30, 1931.

SEALED BIDS, in triplicate, subject to the conditions contained herein, will be received by the U. S. Veterans' Bureau, Room 764, Arlington Building, Washington, D. C., until 2.30 P. M., April 30, 1931, and then publicly opened, for furnishing all labor and materials and performing all work required for constructing and finishing complete at U. S. VETERANS' HOSPITAL, SALT LAKE CITY, UTAH, ONE MAIN BUILDING NO. 1 and ONE GARAGE AND ATTENDANTS' QUARTERS NO. 2, including roads, walks, grading and drainage. This work will include earth work, reinforced concrete, brick work, hollow building tile, cast stone, slate for stairways, marble floor and wall tile, compressed asphalt tile, terrazzo, linoleum floors, waterproofing and dampproofing, miscellaneous structural metal work, ornamental metal work, fire resisting doors, steel window equipment, steel shelving, cabinets, etc., roofing, sheet metal, lightning conductors, lathing and plastering, carpentry, insect screens, X-ray Laboratory and equipment, window shades, painting, glazing, hardware, roads, walks, grading and drainage, plumbing, plumbing equipment, outside water distribution, outside sewers, gas piping, sterilizing and kitchen equipment, heating, heating equipment, including condensate pump and receiver, outside steam distribution, ventilating, boilers and boiler plant equipment, electrical work (including connections to outside electrical distribution system), extension to fire alarm system, nurses' call system and electric passenger elevator (including elevator enclosure doors), frames and trim, zeolite water softening plant, refrigerating plant and radial brick chimney. SEPARATE BIDS will be received for (a) General Construction (including plumbing, heating, electrical work and outside distribution systems); (b) electric elevators; (c) Zeolite Water Softening System; (d) Refrigerating and Ice Making Plant; (e) Radial Brick Chimney; all as set forth in bid form. Bids will be received only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract and in making awards, the record of bidders for expedition and satisfactory performance on contracts of similar character and magnitude will be carefully considered. At the discretion of the Director, drawings and specifications may be obtained upon application to the Construction Division, Room 764, Arlington Building, Washington, D. C., or the Supervising Superintendent of Construction, U. S. Veterans' Bureau, Palo Alto, California. While no deposit will be necessary, return of drawings and specifications within ten days after date of opening bids will be required. Failure to comply with this requirement will be considered in connection with future applications for drawings and specifications. GEORGE E. IJAMS, Director. March 23, 1931.

Bids close April 7, 1931.

Bridges

**DEPARTMENT OF PUBLIC WORKS
STATE OF MARYLAND
STATE ROADS COMMISSION
NOTICE TO CONTRACTORS**

Baltimore, Md.

SEALED PROPOSALS for building bridges as follows:

Allegheny County, Contract No. A-81-611— Steel girder bridge with accompanying road relocation at Barreilville underpass, on the road from Corriganville to Mt. Savage.

Prince George's County, Contract No. P-161-311— Sidewalk to be built over existing bridge on Cottage Avenue over the B. & O. R. R. tracks at Brentwood will be received by the State Roads Commission at its offices, Federal Reserve Bank Building, Calvert and Lexington Streets, Baltimore, Maryland, until 12 M. on the 7th day of April, 1931, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans, will be furnished by the Commission upon application and cash payment of \$1.00, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

BY ORDER of the State Roads Commission this 17th day of March, 1931.

G. CLINTON UHL, Chairman.

L. H. STEUART, Secretary.

Bids close April 7, 1931.

Maryland Highway Work

**DEPARTMENT OF PUBLIC WORKS
STATE OF MARYLAND
STATE ROADS COMMISSION
NOTICE TO CONTRACTORS**

Baltimore, Md.

SEALED PROPOSALS for building four sections of State Highway as follows:

Somerset County, Contract No. S-50-14— One section of State Highway from Maryland Avenue to McCready Hospital, a distance of 0.55 mile (concrete).

Harford County, Contract No. H-108-44— Federal Aid Project No. 235-A—One section of State Highway along the Jarrettville-Upper Cross Roads Road, from the end of Contract No. H-64, near Putman toward the Baltimore County Line, a distance of 3.89 miles (concrete).

Howard County, Contract No. Ho-82-38— Federal Aid Project No. R-6-F—One section of State Highway along the Baltimore-Washington Boulevard in Elkridge, a distance of 0.40 mile (concrete).

Prince George's County, Contract No. P-165-34— Federal Aid Project No. 234—One section of State Highway from Suitland to the Marlboro Pike at District Heights, a distance of 1.40 miles (concrete).

will be received by the State Roads Commission at its offices, Federal Reserve Bank Building, Calvert and Lexington Streets, Baltimore, Maryland, until 12 M. on the 7th day of April, 1931, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans, will be furnished by the Commission upon application and cash payment of \$1.00, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

BY ORDER of the State Roads Commission this 24th day of March, 1931.

G. CLINTON UHL, Chairman.

L. H. STEUART, Secretary.

Bids close April 15, 1931.

U. S. ENGINEER OFFICE, MEMPHIS, TENN.— Sealed bids will be received here until 2 P. M., April 15, 1931, and then opened, for constructing two steel hull, self-propelled suction dredges with 32 inch discharge. Propelling machinery, two triple expansion, vertical, marine type engines, of 600 H.P. each. Dredging machinery, 1250 B.H.P. normal. Steam turbine with double reduction gear. Overall dimensions involved 214 ft. long, 46 ft. wide, 9 ft. deep, 5 ft. draft. Estimated total weight, 1075 tons. Deposit of \$150 required for plans. Information on application.

Bids close April 22, 1931.

Delaware Highway Work

Dover, Del.

Sealed proposals will be received by the State Highway Department at its office, Dover, Del., until 2:00 o'clock P. M., April 22nd, 1931, and at that place and time publicly opened, for contracts involving the following approximate quantities:

CONTRACT 178**COOCH'S BRIDGE-MARYLAND LINE**

2.96 MILES

- 1.1 Acres Clearing.
- 1.1 Acres Grubbing.
- 14,000 Cu. Yds. Excavation.
- 3,400 Cu. Yds. Borrow.
- 400 Cu. Yds. Rock Excavation.
- 3,800 Cu. Yds. Concrete Pavement.
- 2,100 Lin. Ft. Expansion Joint.
- 260 Cu. Yds. Class A Concrete.
- 13,000 Lbs. Reinforcement.
- 280 Lin. Ft. 15 in. Corr. M Pipe.
- 80 Lin. Ft. 18 in. Corr. M Pipe.
- 102 Lin. Ft. 15 in. R. C. Pipe.
- 136 Lin. Ft. 18 in. R. C. Pipe.
- 70 Lin. Ft. 24 in. R. C. Pipe.
- 70 Lin. Ft. 30 in. R. C. Pipe.
- 34 Lin. Ft. 36 in. R. C. Pipe.
- 4,000 Sq. Yds. Concrete Gutter.
- 400 Lin. Ft. Guard Rail.
- 12 End Post Attachments.
- 2,000 Lin. Ft. Wood Shoulder Curb.

CONTRACT 181**HARTLY TO SUDLERSVILLE ROAD**

2.9 MILES

- 3.4 Acres Clearing.
- 3.4 Acres Grubbing.
- 11,700 Cu. Yds. Excavation.
- 500 Cu. Yds. Borrow.
- 5,150 Cu. Yds. Concrete Pavement.
- 15,400 Lin. Ft. Longitudinal Joint.
- 3,100 Lin. Ft. Expansion Joint.
- 100 Cu. Yds. Class A Concrete.
- 1,800 Lbs. Reinforcement.
- 450 Lin. Ft. 15 in. Corr. M Pipe.
- 210 Lin. Ft. 15 in. R. C. Pipe.
- 60 Lin. Ft. 18 in. R. C. Pipe.
- 60 Lin. Ft. 24 in. R. C. Pipe.
- 70 Lin. Ft. 30 in. R. C. Pipe.
- 36 Lin. Ft. 36 in. R. C. Pipe.
- 1,800 Lin. Ft. Wood Shoulder Curb.

CONTRACT 188**GREEN'S MILL-BOWDEN'S GARAGE**

1.51 MILES

- 4,900 Cu. Yds. Excavation.
- 500 Cu. Yds. Borrow.
- 2,700 Cu. Yds. Concrete Pavement.
- 8,000 Lin. Ft. Longitudinal Joint.
- 1,500 Lin. Ft. Expansion Joint.
- 45 Cu. Yds. Class A Concrete.
- 900 Lbs. Reinforcement.
- 160 Lin. Ft. 15 in. Corr. M Pipe.
- 70 Lin. Ft. 15 in. R. C. Pipe.
- 30 Lin. Ft. 18 in. R. C. Pipe.
- 82 Lin. Ft. 24 in. R. C. Pipe.
- 44 Lin. Ft. 36 in. R. C. Pipe.

Performance of contract shall commence within ten (10) days after execution of the contract and be completed as specified.

In the employment of labor, preference shall be given to residents of the State of Delaware.

Monthly payments will be made for 90 per cent of the construction completed each month.

Bidders must submit proposals upon forms provided by the Department.

Each proposal must be accompanied by a surety bond, certified check, or money to the amount of at least ten (10) per centum of the total amount of the proposal.

The envelope containing the proposal must be marked "Proposal for the construction of State Highway Contract No."

The Contract will be awarded or rejected within twenty (20) days from the date of opening proposals.

The right is reserved to reject any or all bids.

Complete sets of plans and specifications may be obtained upon receipt of two dollars (\$2.00) for each contract, which amount will not be refunded.

STATE HIGHWAY DEPARTMENT.

Bids close May 5, 1931.

TREASURY DEPARTMENT, Bureau of Engraving and Printing, Washington, D. C., March 26, 1931.— Sealed proposals are invited for the sale of ink scrapings, and postage stamp and internal revenue paper trimmings, and for the cleaning of windows during the fiscal year beginning July 1, 1931. Proposals to be received not later than 2 p. m., Tuesday, May 5, 1931. Blank forms with specifications for proposals for the several schedules and further information will be furnished on application to A. W. HALL, Director.

Bids close April 30, 1931.

TREASURY DEPARTMENT, Bureau of Engraving and Printing, Washington, D. C., March 19, 1931.— Sealed proposals are invited to furnish this Bureau with check paper, postage stamp paper, and internal revenue paper, during the fiscal year beginning July 1, 1931. Contracts will be made only with actual manufacturers of postage stamp and internal revenue paper. Proposals to be received not later than 2 p. m., Thursday, April 30, 1931. Blank forms with specifications for proposals and further information will be furnished on application to A. W. HALL, Director.

Bids close April 14, 1931.

Roads and Bridges

Richmond, Va.

Sealed bids will be received Tuesday, 10 A. M., April 14, 1931, Dept. of Highways, Richmond, Va., for the constr. of:

Proj.	Mi.	Type	Yds.	Excava.
280	2.3	Conc.	15,030	2,624
399	3.6	Mac. S. T.	37,790	34,278 & Br.
Over Limestone Branch, Conc.				179.5,
				lbs. steel, 12,750.
435	.6	Mac. S. T.	7,413	10,007
493	Br. over Cunningham Cr., cu.			
	ys. conc., 321.7,			steel 46,365.
499	1.8	Mac. S. T.	31,334	19,254
658	Arch Br. Austin's Run, cu. yds.			
	conc. 292, lbs. steel, 8835.			
712	7.3	Soil S. T.	24,150	25,801

Details obtainable upon request.

Bids close April 7, 1931.

Road Construction and Material

Bastrop, La.

Sealed proposals will be received by the Police Jury of Morehouse Parish at Bastrop, Louisiana, up to 11 A. M. Tuesday, April 7, at which time and place they will be publicly opened and read for the following construction and material.

Project No. 6—Beginning at the north end of Project B-1, 6 1/2 miles west of Bastrop and extending west to the Ouachita river. Approximate length 2 miles.

Sealed proposals for gravel for this project will be received up to the same hour and date.

Information as to location, character of work, extent and class of material, terms of payment, regulation governing manner of submitting proposals and executing contract, and proposals for the above work and material may, on application, be obtained at the office of the Parish Engineer at Bastrop, Louisiana, after March 10.

J. LESTER WHITE,
Parish Engineer.J. W. BRODNAX,
Pres. Police Jury.

Bids close April 10, 1931.

Sewer

Richmond, Va.

Sealed proposals will be received at the office of the Director of Public Works, Richmond, Va., until 3 o'clock P. M. April 10, 1931, for the:

1. Construction of Sheppard St. Relief Sewer, consisting of approximately 1700 Lin. Ft. of 120" monolithic and 1600 Lin. Ft. of Precast Concrete Pipe, sizes 72"-78"-84".

2. Furnishing and delivery of approximately 1600 Lin. Ft. of P. R. C. Pipe, sizes 72"-78"-84".

3. Furnishing and delivery of approximately 13,200 Vitrified Clay Slab Liners or 66,000 Vitrified Paving Brick Liners.

Form of Proposal, Plans and Specifications can be obtained on application.

A charge of \$5.00 each will be made for these plans, etc., which sum will not be refunded.

A CERTIFIED CHECK for \$4300.00 on Sewers, \$500.00 on Concrete Pipe, and \$125.00 on Vitrified Liners or Brick, must accompany the respective bids as a guaranty of execution of contract. The Director of Public Works reserves the right to reject any or all bids.

R. KEITH COMPTON,
Director of Public Works,
City Hall.

CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS, WATER POWER, MISCELLANEOUS PROPERTIES

BAUXITE

WANTED—Market for Bauxite Ore; analysis 51.30% aluminum.
BOX 1028,
MONROE, LOUISIANA.

FARM, FRUIT AND TRUCK LANDS

FREE HOMESTEADS—640-320-160 acres; some irrigated; 18 states; maps, "700 Facts"—30c. Address No. 9102, care of Manufacturers Record, Baltimore, Md.

FLORIDA

FOR SALE OR TRADE—135 acre Citrus Grove, 100 acres Valencia oranges. Near Winter Haven. RODDIS, 435 N. E. Second Ave., Miami, Fla.

TEXAS

LOWER RIO GRANDE Valley orchards and acreage at actual value. Owner's price direct to you. Send for list. ROBERTS REALTY CO., Realtors, McAllen, Tex.

VIRGINIA

865 ACRES near Richmond, Va. Fields, streams, woodland, buildings; lots of game. \$7.00 per acre.
OWNER, Box 441, Marion, N. C.

MEXICAN INVESTMENTS

MEXICO. Reports made on investments and prospective investments for Banks, Industrial Plants, Mines and Utilities. W. R. Pender Eng. Service Corp., Post Dispatch Bldg., Houston, Texas.

HOTEL FOR SALE

FOR SALE—56-room furnished hotel. Fine location. Good business. \$85,000, with \$40,000 cash. RODDIS, 435 N. E. Second Ave., Miami, Fla.

BUSINESS OPPORTUNITIES

LONG TERM LOANS, large amounts, made on industrial, mercantile, sawmill properties. THOS. W. GILMER, Attorney, Bay Minette, Alabama.

MANUFACTURERS—Write for our FREE Classification Sheets of inventions for sale, covering 135 main subjects, and in one or more of which you will doubtless be interested. ADAM FISHER MFG. CO., 578 Enright, St. Louis, Mo.

FOR SALE

All equipment of small bank, suitable for bank, realty office, insurance or building and loan office. This modern equipment cost about \$20,000.00. For sale at 20 cents on the dollar. Full schedule and photographs furnished on request.

JOSEPH R. DUNN,
503 Graham Building,
Jacksonville, Fla.

PARKERSBURG.

Successful manufacturers are invited to join this city's colony of prosperous, medium sized, diversified industrial plants.

BOARD OF COMMERCE,
Parkersburg, West Virginia.

FOR SALE—Near Cheraw, S. C., forty acres mineral rights. New and beautiful granite. Pink, blue and white. Practically undeveloped. Used in one Bank Building in Cheraw, S. C. Fine quality granite for monumental work, building stone, street curbing or paving blocks. Samples on request.

LAWSON McCOMBS,
Route No. 3,
Salisbury, N. Car.

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RATES: 30 cents a line each insertion. Minimum space accepted, four lines. In estimating the cost allow six or seven words of ordinary length to line. When the advertisement contains a number of long words proper allowance should be made.

Rates for Special Contract:

100 lines 28c a line
300 lines 26c a line
500 lines or more 25c a line

TERMS: For transient advertising cash with order; check, postoffice or express money order or stamps accepted.

On special contract advertising bills are rendered monthly, covering space used each month, payable within ten days.

CONDITIONS: No patent medicine, oil or mining stock advertisements or questionable or undesirable advertisements will be accepted. The assistance of our readers in excluding undesirable advertisements is requested. No display type used.

BUSINESS OPPORTUNITIES

MANUFACTURERS—"Tell 'em once and sell 'em often with a slogan." An apt slogan in the advertising of your products overcomes sales resistance, through its never failing influence on the buying public, and is that irresistible force which makes your advertisement read, re-read and remembered. FRANK P. JORDAN, SLOGANEER, 945 Birch St., Scranton, Pa.

GAS PRODUCERS-INCINERATORS

MAKE GAS at a cost defying all competition. Size No. 7½, price \$130. Little attention required. A size with a capacity to meet your requirements. Also incinerators, prices on request. Representatives wanted. THE GAS-O-FLAME STOVE WORKS, Burlington, N. J.

INDUSTRIAL SURVEYS

ENGINEERING REPORTS on resources of cities and towns. Recommendations for industrial development and zoning made by specialists in locating industries.

TECHNICAL SERVICE CO.,
Woolworth Building New York City

INDUSTRIES WANTED

WELL-LOCATED Southern town wants industry. Will furnish plant, moving expenses, additional capital and other concessions.

INDUSTRIAL SERVICE CORP.,
Asheville, N. C.

INDUSTRIAL PLANTS

COTTON MILL—Will sacrifice. In heart of cotton belt—Mississippi. Sheeting, osnaburg and rope. Labor cheap and plentiful. Diesel oil engine. In operation. Price \$60,000. Will appraise \$300,000. 8500 spindles. W. D. Dobbins, 504 N. 21st St., Bham, Ala.

LUMBER PLANT FOR SALE

A modern remilling plant, with dry kiln, good track facilities and yard space. Nice retail business connected, and good growing trade. Excellent opportunity. Address No. 9098, care Manufacturers Record.

FACTORY SITES

FACTORY SITE
Adjoining town. Along with good water power electric plant. Also fuel oil auxiliary for emergency use. On railroad siding. Will lease or sell. Price reasonable. Address No. 9097, care Manufacturers Record.

FACTORY SITES

TWO AND ONE-QUARTER MILES railroad frontage industrial sites for sale at Baton Rouge. Southern Land and Investment Company, Baton Rouge, La.

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PATENTS--TRADEMARKS--COPYRIGHTS
Charlotte office convenient to South. PAUL B. EATON, Registered Patent Attorney, 1408 Johnston Building, Charlotte, N. C., and 314 McLachlen Building, Washington, D. C.

MEN WANTED

IF YOU ARE OPEN to overtures for new connection and qualified for a salary between \$2500 and \$25,000, your response to this announcement is invited. The undersigned provides a thoroughly organized service of recognized standards and reputation, through which preliminaries are negotiated confidentially for positions of the caliber indicated. The procedure is individualized to each client's personal requirements, your identity covered and present position protected. Established twenty-one years. Send only name and address for details.

R. W. BIXBY, INC.,
103 Downtown Bldg. Buffalo, New York

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ARE YOU LOOKING FOR
REPRESENTATIVE IN ATLANTA
OR BIRMINGHAM DISTRICTS?

Division or local Manager and Representation solicited—fully qualified—20 years experience with Machinery and Mill Supplies. Enjoy wide and influential acquaintances throughout Atlanta and Birmingham districts. Detailed information regarding experience will be gladly furnished. Address No. 9101, care of Manufacturers Record.

SITUATIONS WANTED

WANTED a job by man forty-five years old, healthy, with unlimited experience in lumber industry, as well as other lines, many years of executive experience. Want connection with well established concern, where experience is necessary for advancement, can represent concerns in the South when requirements are not technical. Address No. 9099, care Manufacturers Record.

REPRESENTATIVES WANTED

WE MAKE Water Conditioning Chemicals and desire to communicate with men now active, calling on the power trade or handling boiler room specialties. Work is highly remunerative. Address No. 9080, care of Manufacturers Record, Baltimore.

MACHINERY AND SUPPLIES

FOR SALE—1 No. 6 Black & Decker Electric Hammer, with set of 10 drills. Slightly used but in excellent condition. \$125.00. HARRISON HDW. & FURN. COMPANY, St. Petersburg, Fla.

ELECTRICAL MACHINERY
For Sale—Motors and Generators, A.C. and D.C. New and Rebuilt. Attractive prices. Large Stock. Write for our Price List. V. M. NUSSBAUM & CO., Fort Wayne, Ind.



Master's & Receiver's Sale



U. S. District Court, Eastern District of Penna. Dec. Term, 1925, No. 3527. In Equity. In the matter of American Exchange. Irving Trust Co., Trustee, vs. Eastern Steel Co., and Dec. Term, 1925, No. 3541. In the matter of W. J. Reiney, Inc., vs. Eastern Steel Co.

The Real Estate Machinery, Equipment and Material of the

EASTERN STEEL CO.

Pottsville, Pa.

to be sold at auction

Mon., Tues. & Wed., April 20, 21 & 22, 1931

at 10 A. M. Each Day on the Premises

NOTE: The Real Estate, Machinery and Equipment will be offered by order of the Master first as an entirety and then in piecemeal lots.

Real Estate

Tract of land, approximately 52 acres, improved with brick office building, electric shop and oil house, frame time office, hospital, several large structural steel buildings housing rolling mills, machine shop, boiler house, etc. Also two Reservoir tracts and several large vacant tracts adjacent to plant. Nine frame dwellings. Also property situated in Eastern part of Island of Cuba, area about 3850 hectares.

Machinery and Equipment

26 electric, overhead, gantry, traveling and ladle cranes, 10 to 25 tons, 42 to 90 feet span; 17 electric hoists 2 to 10 tons; 20 chain hoists 1 to 6 tons; 6 open hearth and 4 reheating furnaces; 10-55 and 85-ton ladles; 139 4-wheel standard gauge cars; 8-4 to 6-in. angle and alligator shears; 2 coal and manganese crushers; 6 rolling mills; 4 cold and hot saws; 2 condensing and reversing steam engines; 16 350 H.P. water tube boilers; 14 steam supply, hydraulic and centrifugal pumps; 5 roll turning lathes; 6-30 to 60-ton four-and-six-wheel standard gauge locomotives; 3-5 to 30-ton locomotive cranes; 29 dump, flat, hopper bottom and gondola cars; 3 clam shell buckets, 4 track scales, 2 mixed flow turbines; 9 machine lathes, planers, boring mills, gear cutters, shapers, millers, radial drills, bolt cutters, pipe threaders, air compressors, generators, generator sets, motors, 5 miles standard gauge track, etc.

Stock, Supplies and Office Furniture

Approximately 5000 tons of H and I beams; approximately 2500 tons of billets; approximately 5000 tons scrap; factory supplies and equipment, electrical supplies, small tools, bushings, bearings, valves, bolts, nuts, office furniture, typewriters, adding machines, calculators, and other office equipment, etc.

Note: The Stock and Office Furniture will be sold by order of the Receiver in piecemeal lots only.

By Order of

ROLAND S. MORRIS, Master; EDWARD L. HERNDON, Receiver
PEPPER, BODINE STOKES & SCHOCH, Esqs., Philadelphia, Pa.,
Attorneys for Receivers.

Descriptive Illustrated Catalogs upon Application to

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New Threads and Couplings
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A complete stock of transformers 1 to 1000 kva. Modern methods make our repair service second to none. Special service on breakdown jobs.

All transformers guaranteed for one year.
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Large quantity new and used Government material in excellent condition, ready for immediate shipment. Low prices.

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High pressure water tube and H R T boilers at unbelievable prices.
We have them in practically every southern state and are scrapping all but the very best. Write us your requirements.

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- 6' American Plain Radial, gear box, single pulley drive.
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- 5' American Plain Radial, gear box, single pulley drive.
- 4' Bickford Plain Radial, gear box, motor drive.
- 4' Dreses Universal Radial, gear box, motor drive.
- 2-3' Cincinnati Bickford Plain Radial, gear box drive.
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Second Hand and New Wrought Steel **PIPE** Overhauled New Threads and Couplings
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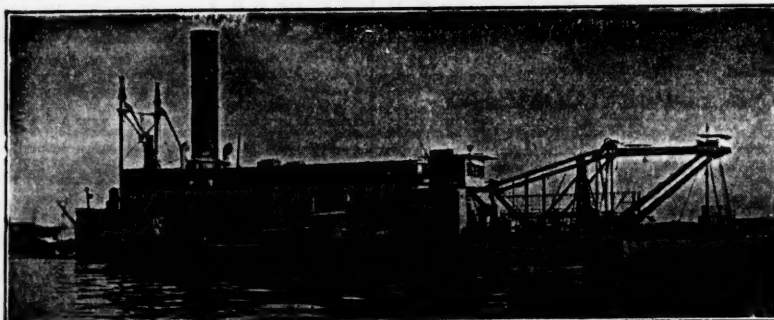
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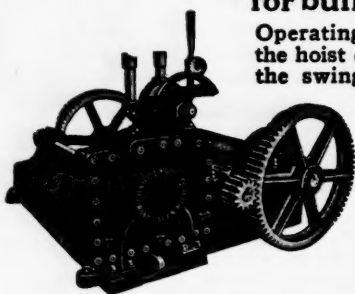
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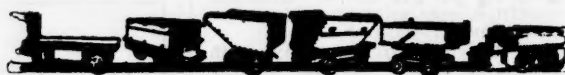
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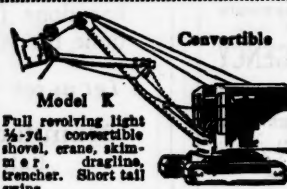
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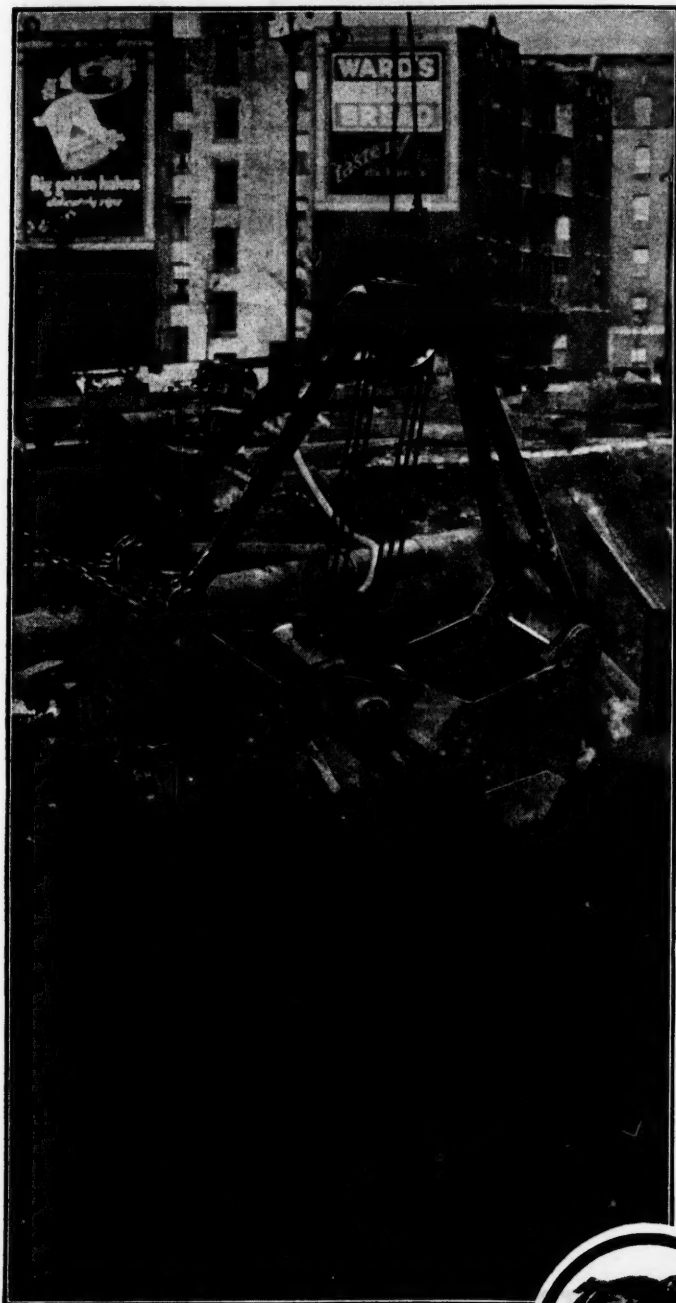
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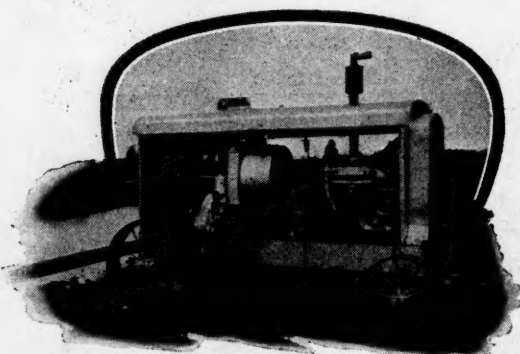


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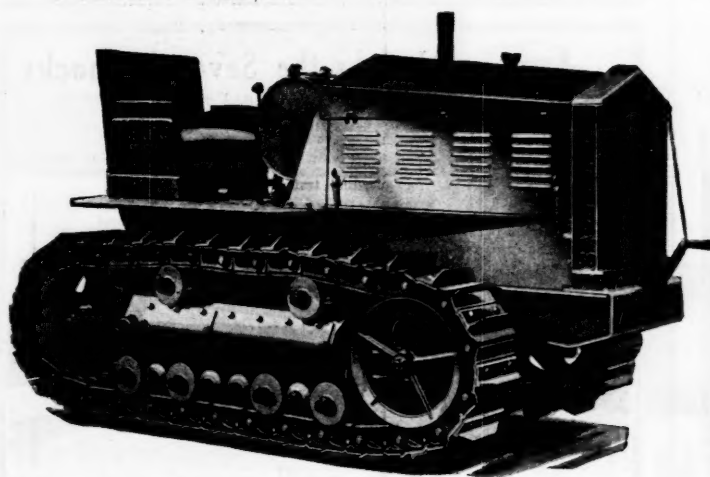
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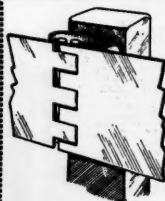
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B. W. & LEO HARRIS CO., Manufacturers
MINNEAPOLIS Write for catalog No. 30 MINNESOTA

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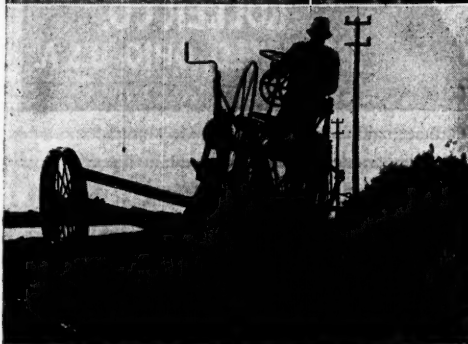
The interlocking joint assists in absorbing the severest shocks and insures a continuous structure for guarding traffic.

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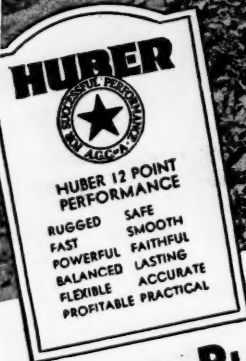
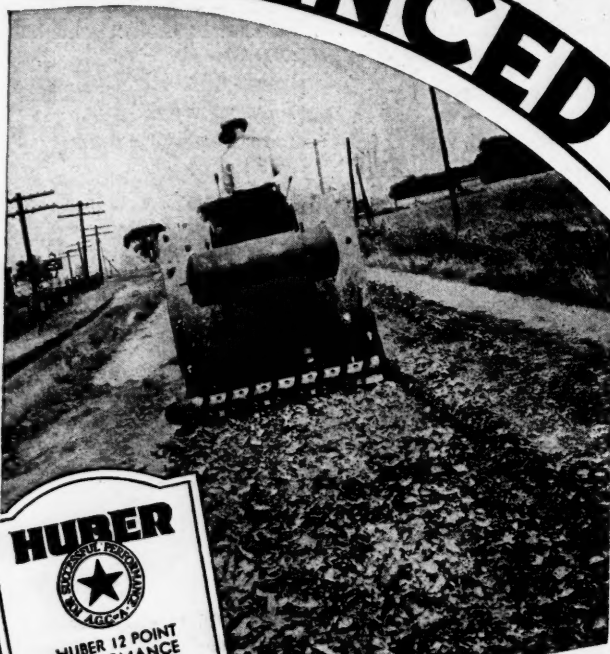
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The Adams line includes: Leaning Wheel Graders, Motor Graders, Elevating Graders, Scarifier Graders, Dump Wagons, Road Maintainers, Patrols, Drags, Scrapers, Plows, etc.

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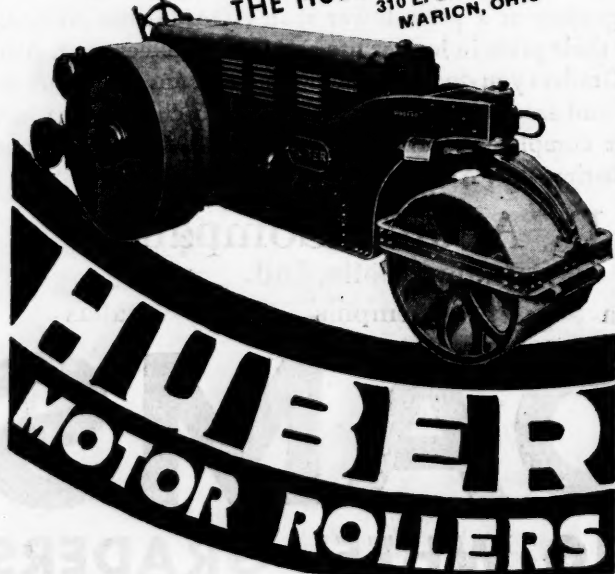


Huber Motor Roller at
Work on Harding Highway

WEIGHT PLACED WHERE IT SHOULD BE " " " "

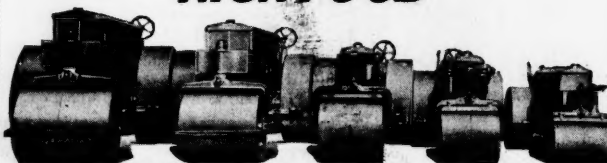
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General Electric Co., Schenectady, N. Y.
Ingersoll-Rand Co., New York, N. Y.
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Quincy Compressor Co., Quincy, Ill.
Sullivan Machinery Co., Chicago, Ill.
Westinghouse Traction Brake Co., Wilmerding, Pa.

AIR HEATERS.

Babcock & Wilcox Co., New York.

AIRPORT EQUIPMENT

International Derrick & Equipment Co., Columbus, Ohio.

AIRPORTS.

Shaw Co., Russell B., St. Louis, Mo.

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Whitney Metal Tool Co., Rockford, Ill.

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Main, Inc., Chas. T., Boston, Mass.

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Boney, Leslie N., Wilmington, N. C.
Chase, Wm. J. J., Atlanta, Ga.
Main, Inc., Chas. T., Boston, Mass.
Milburn, Helster & Co., Wash., D. C.
Moyer Co., Tilghman, Allentown, Pa.
Preacher & Co., Inc., G. Lloyd, Atlanta, Ga.
Sirtine & Co., J. E., Greenville, S. C.
Wheeler, Walter H., Minneapolis, Minn.

ARCHITECTS' SUPPLIES.

Weber Co., Inc., F., Philadelphia, Pa.

ARCHITECTURAL IRON WORK.

Dietrich Brothers, Baltimore, Md.
Virginia Bridge & Iron Co., Roanoke, Va.

ASPHALT.

Gulf Refining Co., Pittsburgh, Pa.

—(Emulsified.)

Headley Emulsified Products Co., Philadelphia, Pa.

—Filler.

American Limestone Co., Knoxville, Tenn.
Servicised Products Corp., Chicago, Ill.

—Paving.

Barber Asphalt Co., Philadelphia, Pa.

—(Plants.)

Simplex System Co., Chattanooga, Tenn.

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Hollowell, Gorham & Co., Greensboro, N.C.
Le Baron, E. T., Jacksonville, Fla.

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Ryerson & Sons, Inc., Jos. T., St. Louis and New York.

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National Equipment Corp. (Insley, Parsons), Milwaukee, Wis.

BALLAST (Railroad.)

American Limestone Co., Knoxville, Tenn.

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Baltimore Trust Co., Baltimore, Md.
First and Merchants National Bank, Richmond, Va.

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McClintic-Marshall Co., Pittsburgh, Pa.

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Connor Steel Co., Birmingham, Ala.
Gulf States Steel Co., Birmingham, Ala.
Ingalls Iron Works Co., Birmingham, Ala.
Knoxville Iron Co., Knoxville, Tenn.
Ryerson & Son, Inc., Jos. T., St. Louis and New York.
Sweet's Steel Corp., Williamsport, Pa.
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.
Timken Roller Bearing Co., Canton, O.
Virginia Bridge & Iron Co., Roanoke, Va.
Youngtown Sheet & Tube Co., Youngtown, Ohio.

BATTERIES (Storage.)

Electric Storage Battery Co., Phila., Pa.

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Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
Ingalls Iron Works Co., Birmingham, Ala.
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.
Virginia Bridge & Iron Co., Roanoke, Va.

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Timken Roller Bearing Co., Canton, Ohio.

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Timken Roller Bearing Co., Canton, Ohio.

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Republic Rubber Co., Youngstown, Ohio.

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Charlotte Leather Belting Co., Charlotte, N. C.
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Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.

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Butler Bin Co., Waukegan, Wis.

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Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
Cole Mfg. Co., E. D., Newnan, Ga.
Combustion Engr. Corp., New York, N. Y.

Hodges Walsh Weldner Co., Chattanooga, Tenn.

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Schofield's Sons Co., J. S., Macon, Ga.

Titusville Iron Works Co., Titusville, Pa.

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—(Scotch Marine.)

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—(Track.)

Sweet's Steel Co., Williamsport, Pa.

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Bristol Steel & Iron Works, Inc., Bristol, Va.
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Converse Bridge & Steel Co., Chattanooga, Tenn.
Ingalls Iron Works Co., Birmingham, Ala.
International Derrick & Equipment Co., Columbus, Ohio.
McClintic-Marshall Co., Pittsburgh, Pa.
Virginia Bridge & Iron Co., Roanoke, Va.

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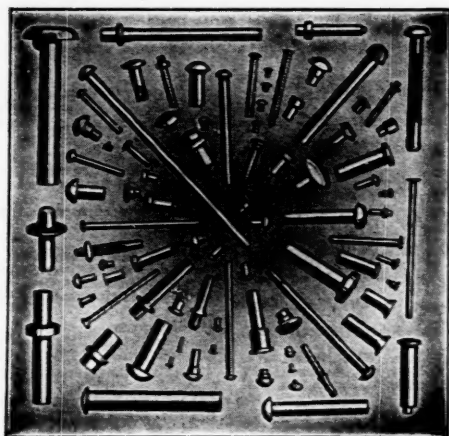
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 Industrial Brownhoist Corp., Cleveland, O.
 Northwest Engineering Co., Chicago, Ill.
 Ohio Power Shovel Co., Lima, Ohio.
 Thew Shovel Co., The, Lorain, Ohio.

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 Ohio Power Shovel Co., Lima, Ohio.
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 Bedford Foundry & Machine Co., Bedford, Ind.
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—(Locomotive.)
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—(Material Handling.)
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 Ohio Power Shovel Co., Lima, Ohio.
 Thew Shovel Co., The, Lorain, Ohio.
 Universal Crane Co., Lorain, Ohio.

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 International Derrick & Equipment Co., Columbus, Ohio.

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—(Crawlers (Tractor).)
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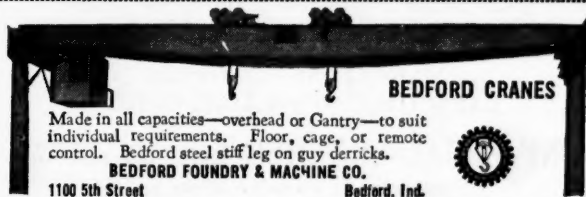
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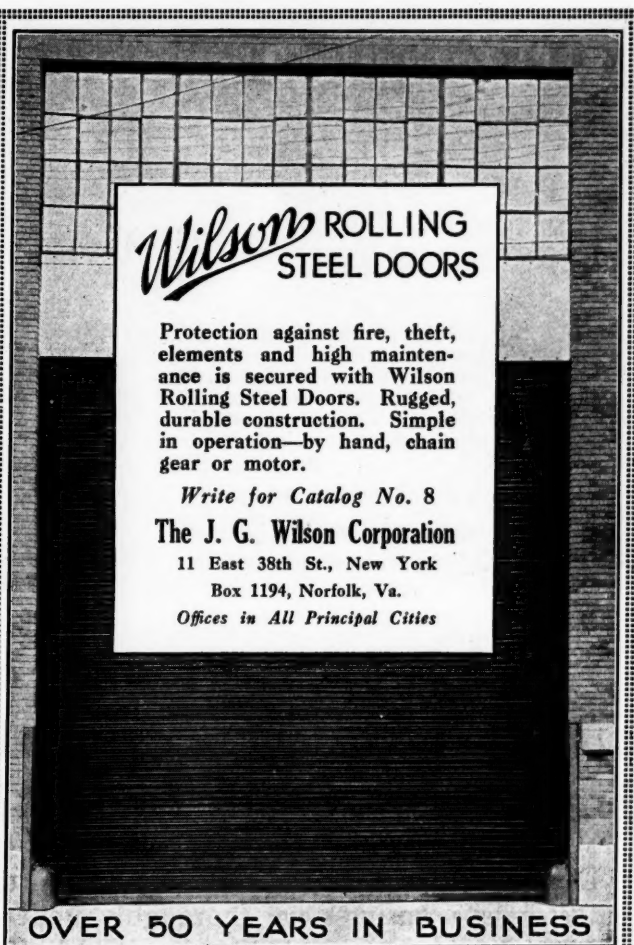
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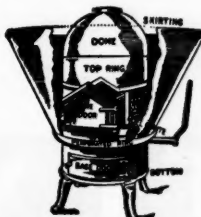
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Sterling Engine Co., Buffalo, N. Y.

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Clyde Iron Works Sales Co., Duluth, Minn.

—(Marine.)

Fairbanks, Morse & Co., Chicago, Ill.

—(Oil.)

Ingersoll-Rand Co., New York, N. Y.
Continental Gin Co., Birmingham, Ala.

—(Steam.)

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Cole Mfg. Co., R. D., Newnan, Ga.
Lombard Iron Works & Supply Co., Augusta, Ga.
Schmidt's Sons Co., J. S., Macon, Ga.

ENVELOPES.

Young & Selden Co., Baltimore, Md.

ESTIMATORS (Building & Construction.)

Martin, Joe B., Charlotte, N. C.

EXCAVATING MACHINERY.

Bay City Shovels, Inc., Bay City, Mich.
Bucyrus-Erie Co., Erie, Penna.
Clyde Iron Works Sales Co., Duluth, Minn.
Harnischfeger Corp., Milwaukee, Wis.
Industrial Brownhoist Corp., Cleveland.
Monaghan Mfg. Corp., Chicago, Ill.
National Equipment Corp., (Kochring, Insley, Parsons), Milwaukee, Wis.
Northwest Engineering Co., Chicago, Ill.
Owen Bucket Co., The, Cleveland, Ohio.
Thew Shovel Co., The, Lorain, Ohio.
Universal Power Shovel Co., Milwaukee, Wis.

EXCAVATORS (Clamshell and Orange Peel.)

Northwest Engineering Co., Chicago, Ill.
Ohio Power Shovel Co., Lima, Ohio.
Thew Shovel Co., Lorain, Ohio.

—(Dragline. See Dragline Excavators.)

—(Trench.)

Barber-Greene Co., Aurora, Ill.
Bay City Shovels, Inc., Bay City, Mich.
Buckeye Traction Ditcher Co., Findlay, Ohio.

Bucyrus-Erie Co., Erie, Penna.
Harnischfeger Corp., Milwaukee, Wis.
Monaghan Mfg. Corp., Chicago, Ill.
Ohio Power Shovel Co., Lima, Ohio.
Universal Power Shovel Co., Milwaukee, Wis.

EXPANSION JOINTS (Road and Street.)

Carey Co., Philip, Lockland, Cincinnati, Ohio.
Servicised Products Corp., Chicago, Ill.

EXPLOSIVES.

Du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.

FACTORY Management Systems.

Ernst & Ernst, New York, N. Y.

FEED-WATER HEATERS and Purifiers.

American Water Softener Co., Phila. Pa.
International Filter Co., Chicago, Ill.

FELT (Building Sheathing.)

Barrett Co., The, New York, N. Y.

FENCE POSTS (Crescoted.)

Ayer & Lord Tie Co., Chicago, Ill.

FENCING Entrance Gates (Iron, Steel and Wire.)

American Steel and Wire Co., Balto., Md.
Anchor Post Fence Co., Baltimore, Md.
Cyclone Fence Co., Waukegan, Ill.
Gulf States Steel Co., Birmingham, Ala.

—(Field and Industrial, Wire Woven.)

American Steel and Wire Co., Balto., Md.
Anchor Post Fence Co., Baltimore, Md.
Cyclone Fence Co., Waukegan, Ill.
Gulf States Steel Co., Birmingham, Ala.

FERTILIZER MACHINERY.

Raymond Bros., Impact Pulv. Co., Chicago.

FILTER (For Domestic and Industrial Purposes.)

American Water Softener Co., Phila., Pa.
Bacharach & Co., E. W., Kansas City, Mo.
International Filter Co., Chicago, Ill.
Roberts Filter Mfg. Co., Darby (Phila.), Pa.

—(Cloth.)

Newark Wire Cloth Co., Newark, N. J.

FINANCING.

Electric Bond & Share Co., New York.
Garraway & Co., S. G., Chicago.
Gay & Co., W. O., New York, N. Y.

FIRE EXTINGUISHERS.

Myers & Bro. Co., The F. E., Ashland, O.

FIREPROOF Building Material.

Bannon Pipe Co., Louisville, Ky.

—Doors and Shutters.
Kinner Mfg. Co., The, Columbus, Ohio.
Wilson Corp., The J. G., New York City.

FITTINGS (Wire Rope.)
Boehling's Sons Co., John A., Trenton, N. J.

FLANGES (Iron and Steel.)
Amer. Cast Iron Pipe Co., Birmingham.
Dart Mfg. Co., E. M., Providence, R. I.
National Cast Iron Pipe Co., Birmingham, Ala.
Taylor Forge & Pipe Wks., Chicago, Ill.
U. S. Pipe & Foundry Co., Burlington, N. J.

—(Swivel.)
Merco Nordstrom Valve Company, San Francisco, Cal.

—and Flanged Fittings.
Grinnell Co., Inc., Providence, R. I.

FLOOR (Asphalt Mastic.)
Barber Asphalt Co., Philadelphia, Pa.

—(Asphalt Plank.)
Servicised Products Corp., Chicago, Ill.

—(Cork Composition.)
Congoleum-Nairn, Inc., Kearny, N. J.

—(Hardwood, Maple, Oak.)
Kirby Lumber Co., Houston, Tex.
Nashville Hardwood Flooring Co., Nashville, Tenn.

—(Linoleum.)
Congoleum-Nairn, Inc., Kearny, N. J.

—(Northern Hard Maple.)
Holt Hardwood Co., Oconto, Wis.

—(Open Steel.)
Blaw-Knox Co., Pittsburgh, Pa.
Irving Iron Works Co., Long Is. City, N. Y.
Kerlow Steel Flooring Co., Jersey City, N. J.

—Covering.
Congoleum-Nairn, Inc., Kearny, N. J.

—Hardner (Concrete.)
Sonneborn Sons, Inc., L., New York.

—Plates and Stair Treads.
Central Iron & Steel Co., Harrisburg, Pa.
Ryerson & Son, Inc., Jos. T., St. Louis and New York.

—Steel (For Concrete Culverts, Roads, Streets.)
Blaw-Knox Co., Pittsburgh, Pa.

—Wax.
Congoleum-Nairn, Inc., Kearny, N. J.

FLUSH-TANK SIPHONS.
Pacific Flush-Tank Co., New York, N. Y.

FORM CLAMPS.
M & M Clamp Co., Minneapolis, Minn.

FORMED PRODUCTS (Roofing.)
American Rolling Mill Co., Middletown.

FORMS, Steel (For Concrete Culverts, Roads, Streets, Curbs, Sidewalks, Tiles.)
Blaw-Knox Co., Pittsburgh, Pa.

FOUNDRIES and Machine Shops.
Deemer Steel Casting Co., New Castle, Del.
General Machine Works, York, Pa.
Glamorgan Pipe & Fdry. Co., Lynchburg, Va.
Goldens' Fdry. & Mch. Co., Columbus, Ga.
Lombard Iron Works & Supply Co., Augusta, Ga.
Mountain State Steel Foundries, Parkersburg, W. Va.
Richmond Foundry & Mfg. Co., Richmond, Va.

FOUNDRY Equipment and Supplies.
Chain Belt Co., Milwaukee, Wis.
Hill & Griffith Co., Cincinnati, O.

—Facings (Talc and Soapstone.)
Hill & Griffith Co., Cincinnati, O.

FURNACES (Industrial.)
Combustion Engr. Corp., New York City.

—(Water-Cooled.)
Combustion Engr. Corp., New York City.
Fuller Lehigh Co., Fullerton, Pa.

GALVANIZED Products.
Birmingham Galvanizing Co., Birmingham, Ala.
Cattle & Bros., Jos. P., Philadelphia, Pa.
International Derrick & Equipment Co., Columbus, Ohio.

—Steel and Iron.
American Rolling Mill Co., Middletown, O.
American Sheet & Tin Plate Co., Pittsburgh, Pa.
Granite City Steel Co., Granite City, Ill.
Superior Sheet Steel Co., Canton, Ohio.

GALVANIZING (Cadmium Plating.)
Birmingham Galvanizing Co., Birmingham, Ala.

—(Hot Dip.)
Bessemer Galvanizing Works, Birmingham
Birmingham Galvanizing Co., Birmingham, Ala.
Cattle & Bros., Jos. P., Philadelphia, Pa.
Newport News Shipbuilding & Drydock Co., Newport News, Va.

GARAGES (Metal.)
International Derrick & Equipment Co., Columbus, Ohio.

GAS HOLDERS.
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
Chicago Bridge & Iron Works, Atlanta, Ga.

—Producers.
Gas-O-Flame Stove Works, Fort Deposit, Md.
Wood & Co., R. D., Philadelphia, Pa.

GASOLINE and KEROSENE.
Gulf Refining Co., Pittsburgh, Pa.

GASOLINE SHOVELS (See Shovels.)

GEARS.
DeLaval Steam Turbine Co., Trenton, N. J.
Earle Gear & Machine Co., Phila., Pa.
General Electric Co., Schenectady, N. Y.
Woods' Sons Co., T. B., Chambersburg, Pa.

—(Worm Reduction.)
DeLaval Steam Turbine Co., Trenton, N. J.

GENERATORS, MOTORS (New.)
Century Electric Co., St. Louis, Mo.
General Electric Co., Schenectady, N. Y.
Westinghouse Elec. & Mfg. Co., E. Pittsburgh, Pa.

—(Used.)
O'Brien Machinery Co., Phila., Pa.
Randle Machinery Co., The, Cincinnati, O.

GEOLOGISTS. (See Engineers, Geological.)

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Hires Turner Glass Co., Philadelphia, Pa.

—(Plate.)
Hires Turner Glass Co., Philadelphia, Pa.
Southwestern Sheet Glass Co., Okmulgee, Okla.

—(Window.)
Hires Turner Glass Co., Philadelphia, Pa.
Southwestern Sheet Glass Co., Okmulgee, Okla.

—(Wire.)
Hires Turner Glass Co., Philadelphia, Pa.
Southwestern Sheet Glass Co., Okmulgee, Okla.

GRADERS (Elevating.)
Adams Co., J. D., Indianapolis, Ind.
Caterpillar Tractor Co., Peoria, Ill.

—(One Man Motor.)
Adams Co., J. D., Indianapolis, Ind.

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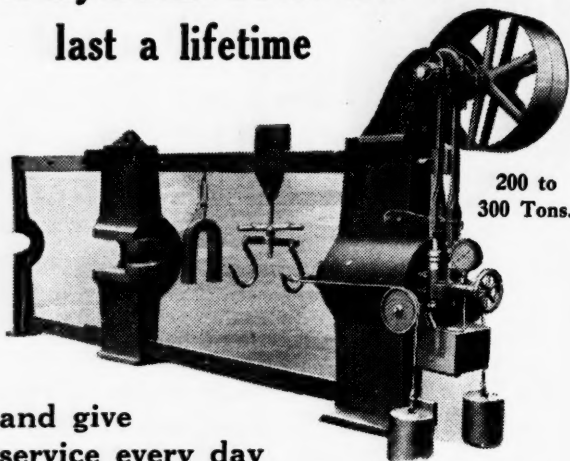
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Friend & Co., Inc., Petersburg, Va.
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Sullivan Machinery Co., Chicago, Ill.

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Wright Mfg. Co., Lisbon, Ohio.

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Milwaukee Elec. Crane & Hoist Div. of
Harnischfeger Corp., Milwaukee, Wis.
Novo Engine Co., Lansing, Mich.
Street Bros. Mch. Wks., Chattanooga, Tenn.

—(Gasoline.)

Clyde Iron Works Sales Co., Duluth, Minn.
Dake Engine Co., Grand Haven, Mich.
National Equipment Corp. (C. H. & E.
Division), Milwaukee, Wis.
Novo Engine Co., Lansing, Mich.
Street Bros. Mch. Wks., Chattanooga, Tenn.

—(Steam.)

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Dake Engine Co., Grand Haven, Mich.
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mington, Del.

INJECTORS.

Randle Machinery Co., The, Cincinnati, O.

INSULATING BOARD.

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caster, Pa.
United Cork Companies, Lyndhurst, N. J.

—Materials.

General Electric Co., Schenectady, N. Y.

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Gay & Co., W. O., New York City.
Hanchett Bond Co., Inc., The, Chicago, Ill.
Nuveen & Co., John, Chicago.
Provident Savings Bank & Trust Co.,
Cincinnati, Ohio.

IRON.

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Tennessee Coal, Iron & Railroad Co., Bir-
mingham, Ala.

—(Ingot, For Culverts, etc.)

American Rolling Mill Co., Middletown, O.

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Leadite Co., The, Philadelphia, Pa.

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Durham Brazing & Welding Works, Dur-
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Western Electric Co., New York City.

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Lee Clay Products Co., Cleardale, Ky.
Owensboro Sewer Pipe Co., Owensboro, Ky.

—(Tube Mill.)

Fuller Lehigh Co., Fullerton, Pa.

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Northwest Engineering Co., Chicago, Ill.

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Porter Co., H. K., Pittsburgh, Pa.

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—(Gasoline.)
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Kirby Lumber Co., Houston, Texas.
Nashville Hardwood Flooring Co., Nashville, Tenn.

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Amer. Cresoting Co., Inc., Louisville, Ky.
Ayer & Lord Tie Co., Inc., Chicago.
Eppinger & Russell Co., New York, N. Y.
Gulf States Cresos. Co., Hattiesburg, Miss.
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Reynolds Bros. Lbr. Co., Albany, Ga.

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Kirby Lumber Co., Houston, Texas.
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—(Zinc Meta Arsenite Treated.)
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General Machine Works, York, Pa.

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O'Brien Machinery Co., The, Phila., Pa.
Randle Machinery Co., The, Cincinnati, O.
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National Equipment Corp. (Insley, C. H. & E.), Milwaukee, Wis.

METAL-Cutting Machinery.
Earle Gear & Machine Co., Phila., Pa.

—Trim.
Milcor Steel Co., Milwaukee, Wis.

—Working Machinery.
Bliss Co., E. W., Brooklyn, N. Y.

MILL MACHINERY and SUPPLIES.
Lombard Iron Works & Supply Co., Augusta, Ga.

MIXERS.
National Equipment Corp. (Koehring, T. L. Smith, Kwik-Mix), Milwaukee, Wis.

—(Asphalt.)
Erie Machine Shops, Erie, Pa.

—(Hot.)
Koehring Co., Milwaukee, Wis.

—(Mortar.)
Chain Belt Co., Milwaukee, Wis.
Jaeger Machine Co., Columbus, Ohio.

—(Plaster.)
Blystone Mfg. Co., Cambridge Springs, Pa.
Chain Belt Co., Milwaukee, Wis.
Dunning & Boschert Press Co., Syracuse, N. Y.
Jaeger Machine Co., Columbus, Ohio.

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Century Electric Co., St. Louis, Mo.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Western Electric Co., New York City.
Westinghouse Elec. & Mfg. Co., E. Pittsburgh, Pa.

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NUTS (Cold Punched.)
Oliver Iron & Steel Corp., Pittsburgh, Pa.

OIL (Fuel and Gas.)
Gulf Refining Co., Pittsburgh, Pa.
White Oak Corp., Tulsa, Okla.

—Cups.
Lunkenheimer Co., The, Cincinnati, O.

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Georgia Iron Works, Augusta, Ga.

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—Iron Work.
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Republic Rubber Co., Youngstown, Ohio.

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Dixon Crucible Co., Jos., Jersey City, N. J.

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Sonneborn Sons, Inc., L., New York.

—(Preservative.)
Cabot, Inc., Samuel, Boston, Mass.
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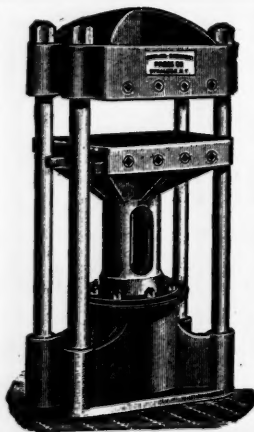
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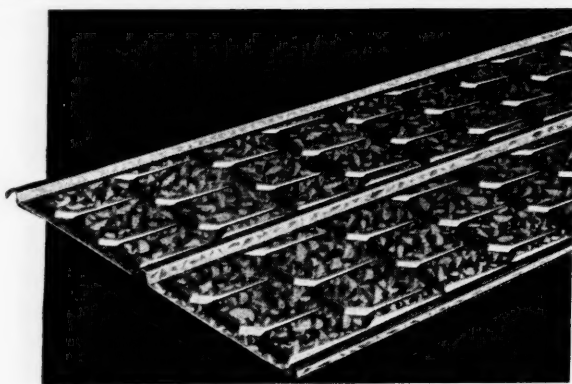
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American Steel & Wire Co., Balto., Md.

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—(Special Analysis.)

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Eichleay, Jr., Co., John, Pittsburgh, Pa.

Ingalls Iron Works Co., Birmingham, Ala.
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Chicago Bridge & Iron Works, Atlanta, Ga.

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Hammond Iron Works, Warren, Pa.

Hedges Walsh Weldner Co., Chattanooga, Tenn.

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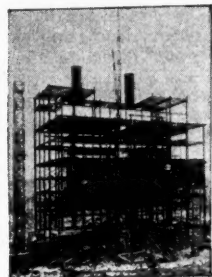
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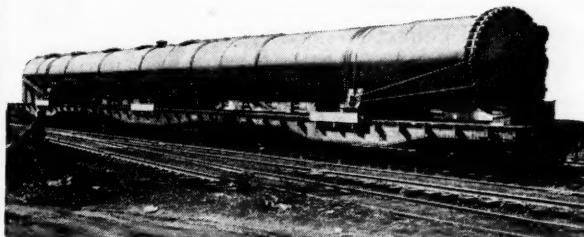
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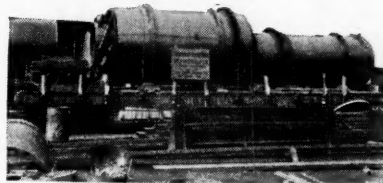
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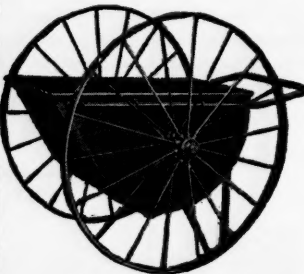
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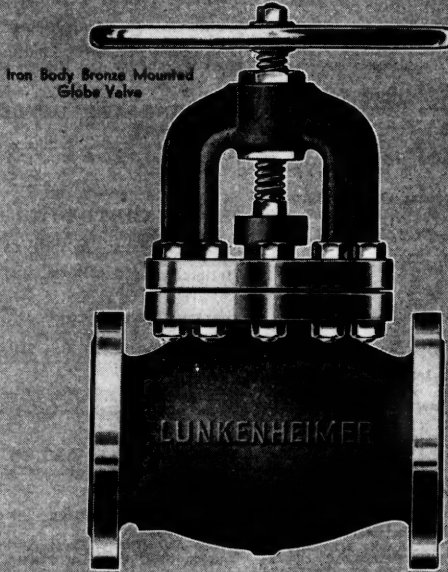
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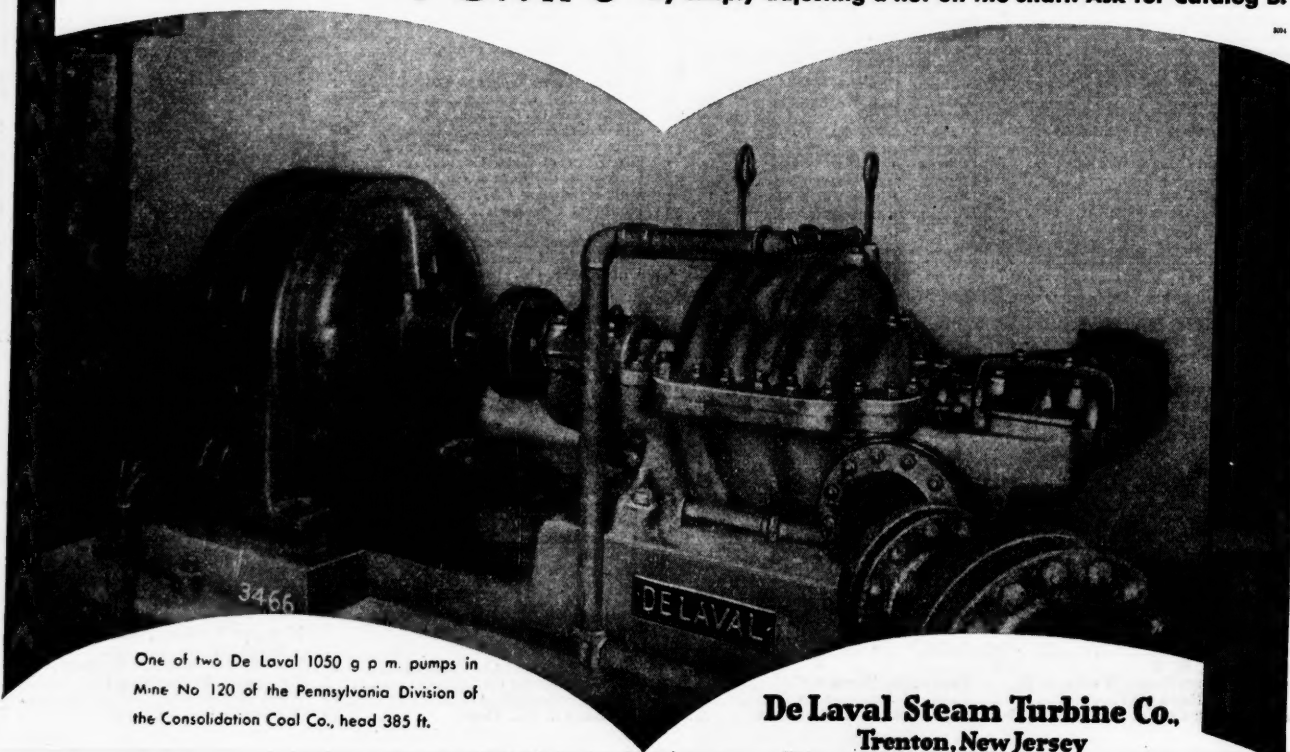
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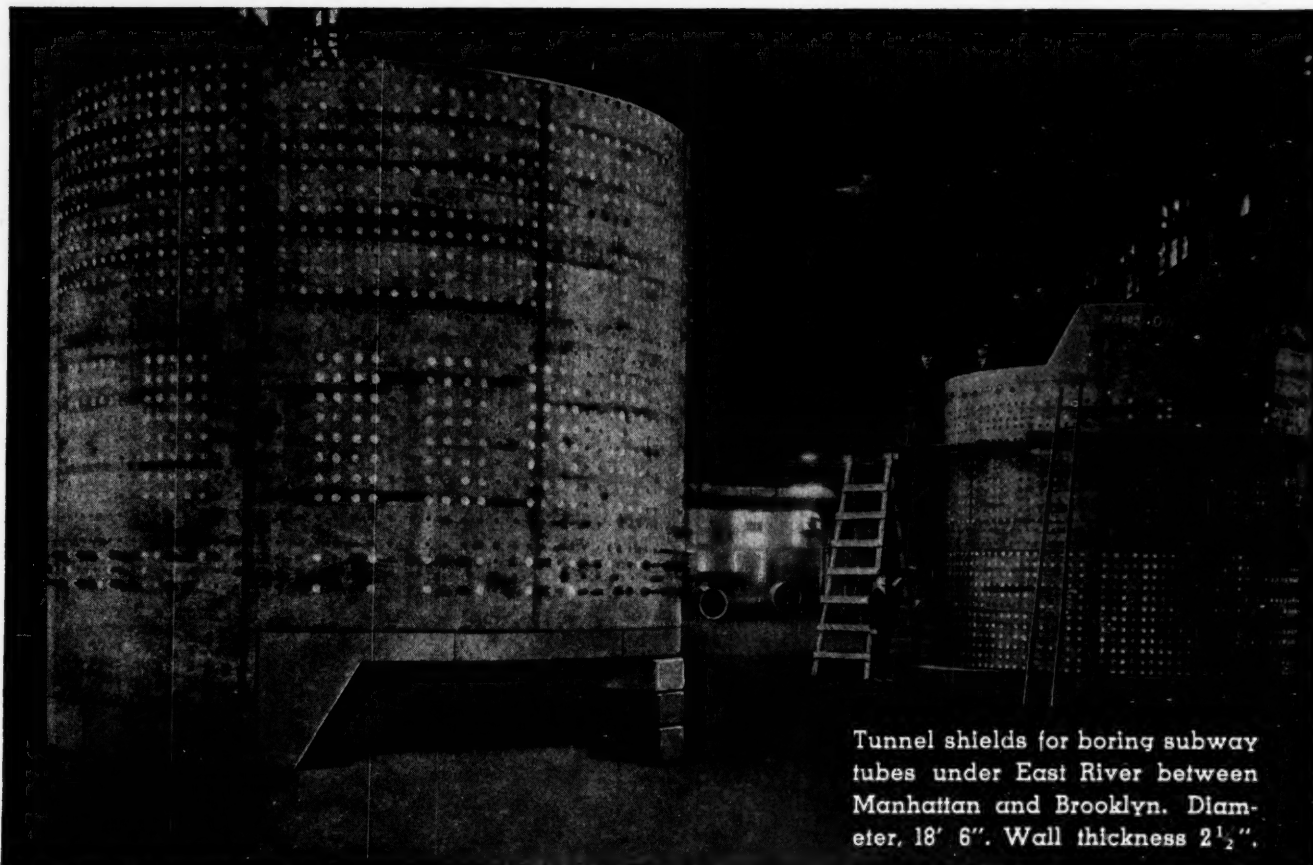


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